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David vs. Goliath: SMEs Role in winning the sustainability battle

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Abstract

Climate change, resource depletion, environmental and economic disparity – these are the 21st Century Goliaths. Governments have been discussing how to fight these Goliaths for over twenty years with limited success. Small and medium enterprises (SMEs) are primarily overlooked when discussing these issues. SMEs are the 21st Century Davids. SMEs have a substantial aggregate impact and are frequently referred to as the "economic engine" of a country. In this conceptual paper, the authors demonstrate that due to SMEs' aggregate impact and economic functions, their participation in sustainable development (SD) is essential. Most SMEs are intimate with their customers, rely heavily on the local economy, and their owner/managers have stronger motivations than mere profit maximization. This provides the incentive for them to participate in the betterment of their communities. In addition, the majority of disruptive innovations have been introduced by SMEs and new business models will be required to transition to a sustainable economic model. While governments, NGOs and large corporations are increasingly recognizing SMEs' importance, there is frequently a gap between their rhetoric and actions in engaging these organizations. SMEs themselves find the concept of SD ambiguous and the terminology inappropriate to their operations. Those that strive to adopt sustainable practices and/or develop sustainable initiatives frequently are unclear on the appropriate tools or lack the resources with which to do so. This paper identifies key factors that will enable SMEs to not only become sustainable enterprises but also to champion SD.

1. INTRODUCTION

Climate change, resource depletion, environmental and economic disparity – these are the 21st Century Goliaths. Governments have been discussing how to fight these Goliaths for over twenty years with limited success, if any. In some cases, policies have taken steps backward. Sustainable development (SD) is the most promising armament to slay the giants. Non-governmental organizations (NGOs) and the general public have directed their attention on large corporations due to their global impact and a perception that these organizations have been significant contributors to the problems while small and medium enterprises (SMEs) have been primarily overlooked. This is a disservice as SMEs are the 21st Century Davids. SMEs have a substantial aggregate impact and are frequently referred to as the "economic engine" of a country.

A roadmap to success is presented to include initiatives for government, NGOs and large corporations to address the challenges SMEs experience in their sustainability journeys and create environments to facilitate SME participation. Recommendations for SME owner/managers to promote sustainable initiatives within and amongst themselves follow.

2. RESEARCH DESIGN AND DATA COLLECTION

This is a conceptual paper, drawing from qualitative case studies conducted internationally of SMEs and their approaches to sustainability. Such an approach is appropriate when there are few metrics to quantitatively evaluate the subject matter or when the data cannot be assessed adequately using existing frameworks. Because there are many definitions of SD and several approaches, how these concepts can be effectively implemented by SMEs is an interpretive process. Other scholars have used this method to apply current theories to different business issues, or, as is the case in this paper, to different business sectors.

A variety of supplementary sources have been reviewed to compare and contrast the case study findings with current general practices and progress. It is worth noting that the majority of documents produced relate to corporate social responsibility (CSR) specifically, followed by environmental considerations, rather than SD as a holistic concept. As the concept of sustainable development is continually evolving, and its application has only recently been applied to SMEs, studies within the last five years and the most current government and NGO reports have served as primary data for this analysis.

2.1. Scope, limitations and assumptions

SMEs are heterogeneous and there is no "one size fits all" approach to facilitating sustainable development within each organization. To add further complexity, SMEs experience different sustainability challenges depending on their geographic location. As this paper is designed for a broad audience, its intent is to examine how sustainable development within SMEs generally differs from that of large corporations, with an emphasis on SMEs in developed countries.

Sustainability, CSR and environmental management are terms frequently used interchangeably within the literature although each could be considered independently. Due to limited data availability on sustainable development and SMEs specifically, for the purposes of this paper case studies on all three have been referenced. This presents a challenge in correlating the literature to holistic sustainable development principles.

The case studies reviewed have been conducted most frequently by interviewing SMEs. Depending on the study, participants were either pre-selected or included based on their willingness to cooperate. The author recognizes that this method of data collection may have impacted the accuracy of the results and subsequent analyses of the authors. As supplementary sources reviewed support case study findings, it is unlikely these possible inaccuracies are material to the analysis presented herein.

3. SUSTAINABILITY AND SUSTAINABLE DEVELOPMENT

"[Sustainable development] is a delightfully diverse, safe, healthy and just world, with clean air, water, soil and power – economically, equitably, ecologically and elegantly enjoyed." ~ William McDonough, co-author Cradle to Cradle

3.1.1. The three Es

Irrespective of the confusion caused by a myriad of definitions, approaches, competing and complementary concepts, there is one commonly accepted objective of sustainable development: achieving equitable and economic prosperity without exceeding the environmental carrying capacity of our one planet earth.

3.2. Why it is important

> *"We're in a giant car heading towards a brick wall and everyone's arguing over where they're going to sit." ~ David Suzuki, Canadian Environmentalist*

Climate change, resource depletion, environmental degradation and economic disparity are issues that permeate the news on a daily basis, with many compelling arguments as to their importance. While it is outside the scope of this paper to discuss these arguments in depth, the following points highlight the interrelationship between the three Es and the value in considering them holistically.

- **Environment:** Non-renewable resources, by their very definition, will cease to exist at some point. As mankind's survival depends on the natural environment, and nature provides the "fundamental rules of the game", it is essential to develop systems where humans and nature can exist in productive harmony (EPA, n.d.; Seale, as quoted by Even-Har, 2012).

- **Equity:** Although tremendous wealth has been amassed globally due to the carbon economy, 1.3 billion people remain "trapped in dire poverty" (DARA, 2012). Research suggests that unequal societies have "lower levels of trust, literacy and social cohesion", which makes it more difficult to make positive inroads on economic and environmental issues (Wilkinson & Pickett, 2009).

- **Economics:** While profit may not be the reason for the existence of an enterprise, it is a requirement, and well-designed economic growth will contribute to improved quality of life and poverty elimination.

4. SMALL AND MEDIUM ENTERPRISES (SMEs)

4.1. Definition and impact

While the definition of an SME varies globally, governments most often identify them by the number of full-time equivalent workers they employ (ftes), a maximum amount of revenue generated annually, or a combination thereof. When considering the impact of SMEs, in Canada this sector accounts for 99.8 percent of enterprises, 60 percent of employment, and 57 percent of GDP (Industry Canada, 2011). Similar statistics are present in the EU (EC, 2012b) and internationally. Furthermore, the International Finance Corporation has identified a positive relationship between a county's overall level of income and the number of SMEs per 1,000 people (WBCSD, 2007).

Clearly, the aggregate influence of SMEs is substantial, which is why they are frequently referred to as the "economic engine" of a country. While non-governmental organizations (NGOs) and the general public have directed their attention to large corporations due to their global impact, high visibility and a perception that these organizations have been significant contributors to the problems, a UK survey for the Environmental Agency noted that "SMEs are responsible for 80 percent of pollution incidents and 60 percent of commercial waste" (ENDS, 2003) and it is reasonable to assume these statistics are similar in other developed countries. While these statistics alone could justify the importance of engaging SMEs in sustainable development, additional reasons, as outlined in this section, further underscore the value of their role.

4.2. Why they are important to sustainable development

SMEs' contributions to sustainable development can be separated into two categories: those who are satisfied with their market niche but are concerned (or need to be concerned) with operating their businesses sustainably; and those who are seeking market opportunities by introducing new and sustainable products and processes to the marketplace. To distinguish between the two, they are herein referred to "Adopters" and "Innovators" respectively. The majority of SMEs are Adopters. Transitioning these businesses from organizations interested in sustainability to organizations operating sustainably can significantly reduce the pollution and waste generated globally. In addition, transitioning to a global sustainable economic model will require a new way of thinking, new processes and business models (Holliday et al., 2002). Innovators are natural incubators for such disruptive technologies. While Innovators represent a smaller percentage of the SME business bloc, they are the leading organizations for job growth and hold tremendous promise to radically shift business approaches.

4.2.1. Structural alignment

While SMEs are officially characterized by their size, they also have unique organizational characteristics compared to large corporations. A review of these characteristics suggest that they are not only well structured to match larger enterprises in their sustainability efforts (Fassin, 2008; Jenkins, 2009; Murillo & Lozano, 2006), but also have the opportunity to be SD leaders.

- The most common form of SME is one managed by the owner. As owners, they have autonomy to utilize their resources as they see fit – that is, they are not required to maximize profit for a large group of shareholders (Freisleben, 2011; Jenkins, 2009; Spence, 2007; Spence, Boubaker Gherib & Biwolé, 2011; Stubblefield Loucks et al., 2010).

- The culture of the organization is well known and reflects the personal values and beliefs of the owner/manager. Their operations are less formalized and codified and, with less hierarchy and bureaucracy, information is easily and quickly disseminated throughout the organization (Jamali et al., 2009; Jenkins, 2009). This allows for alignment of action with the company's objectives, making business practices a "way of life" instead of "lifeless documents" (Bos-Brouwers, 2010; Fassin, 2008).

- SMEs are more intimate with their customers and rely more heavily on the local economy than do large corporations; relationships are critical to their success (Spence, 2007). This provides the knowledge and incentive for them to participate in the betterment of their communities. It is commonly accepted that sustainability is a global issue that needs local solutions.

- They are flexible and organic and can more quickly identify and respond to changes in market demand (Jenkins, 2009; Lefebvre & Lefebvre, 2012; Stubblefield Loucks et al., 2010).

4.2.2. Job creation

In Canada, between 2001 and 2011, small firms accounted for 43 percent of all jobs created (Industry Canada, 2012). Statistics in the United States (US) cite an even greater impact. Henry Nothhaft's research discovered "since 1977, *all* new job creation in the US has been due to startups" (Harvard Business Review, 2011). In addition, startups provide more opportunities to women and minorities and this naturally fosters a more equitable marketplace. "Unlike corporate management, there is no glass ceiling in a company you start for yourself" (Chamorro-Premuzic, 2012). In the US, female-owned companies account for over $3 trillion in GDP – equating to approximately 40 percent of China's entire GDP (ibid). While similar statistical data for Canada is unavailable, over one third of self-employed persons are women (Industry Canada, 2012).

4.2.3. Integral value chain members

A 2010 internal assessment by Baxter (medical equipment - international) calculated its supply chain was responsible for almost 38 percent of its carbon footprint, with similar statistics (41 percent) being reported by GlaxoSmithKline (pharmaceuticals – international) (Schatsky, 2012). Puma (apparel – international) calculated their supplier impact to be over 90 percent of total water use and GHG emissions (ibid.). As pressure is placed on large corporations to become more transparent regarding their own sustainable business practices, they will be increasingly focused on ensuring the SMEs in their value chain adopt similar and/or complementary practices.

4.2.4. Innovation

While large corporations can provide scalability, historically the majority of disruptive innovations have been introduced by SMEs. This is attributable in part to their organizational structures, but also because many large companies have too much capital invested in current technologies. Such capital investments can lead large corporations to believe they will remain profitable operating in a "business as usual" manner and/or make it difficult to cost justify major retooling.

4.3. Why sustainable development is important to them

> *"People are looking for meaning, for companies that are doing something positive. Sustainability differentiates us." ~ Dominic Fielden, Co-founder, Rocky Mountain Flatbread Co.*

While the argument for SD as a global initiative is substantive, these large-scale issues often do not resonate with SMEs. One would be hard-pressed to find an individual or company who believes that equity or the environment is not important, however without a clear understanding of how it impacts their own organizations, SD will continue to be perceived as "someone else's" problem.

4.3.1. Competitive advantage

Competitive advantage is obtained by utilizing the resources and capabilities of the organization to cater to market demand, and a higher rate of profit is realized either through reduced costs or the ability to realize a price premium. While market position is important to ensure long-term viability of any enterprise, SME owner/managers are motivated by factors other than profit maximization (Jenkins, 2009; Lewis & Cassells, 2010; Spence, 2007; Weinzimmer & Manmadhan, 2009). Grant (2008) suggests that a firm may forgo current profit achieved through securing competitive advantage in favour of other opportunities – such as customer loyalty, technology or executive perks. As a result, the concept of competitive advantage can resonate with SMEs on both business and personal levels.

Sustainable principles are based on doing more with less; improving the quality of life of all while simultaneously preserving the natural environment and adding to its beauty. These principles enable Adopters to achieve competitive advantage through improved cost control, risk management and stakeholder (employee and customer) satisfaction. New approaches such as bio-mimicry, green chemistry, closed-loop production and service-based sales models, offer tremendous opportunities for Innovators to realize competitive advantage by satisfying under-served market demand.

4.3.2. Resource scarcity

SMEs traditionally cater to niche markets and compete based on product differentiation; large corporations capitalize on economies of scale and commonly compete on price. While their focus is different, SMEs still need to consider costs. From a material cost perspective, SMEs are more susceptible to the price fluctuations of natural resources than their larger counterparts. Resource scarcity creates volatility in pricing and increases business risk. Evidence strongly suggests with the growing population and wealth creation in developing countries, this demand will only continue to increase (WWF, 2012).

When organizations minimize waste, improve efficiencies and streamline processes, they realize lower transaction costs without sacrificing value to their customers. These cost savings can benefit the organization by directly flowing to the bottom line, freeing up resources to provide added value to the consumer or to enable the organization to become more cost competitive.

From a human resource perspective, SMEs compete with large corporations for talent and frequently cannot provide comparable wages, benefits or opportunities for upward mobility. By cultivating an environment of caring – incorporating fair labour practices, ensuring safety and promoting personal development – they are better positioned to attain and retain high quality talent (Fassin, 2008; Murillo & Lozano, 2006). In addition, individuals prefer to work in organizations with purposes that align with their own values (Holliday et al., 2002).

4.3.3. Market demand

SMEs are heavily dependent on their external relationships with customers, suppliers and other industry members (Jenkins, 2009; Stubblefield Loucks et al., 2010). Consumers are increasingly more interested in purchasing responsibly and members of the value chain look to partner with organizations that treat them fairly. In a recent US survey by the League of Conservation Voters, "An overwhelming 93 percent say there is a moral obligation to leave an Earth not polluted or damaged to future generations, with 67 percent strongly agreeing" (Johnson, 2013). By considering the needs, preferences and objectives of these stakeholders, SMEs are better able to deliver on their fundamental objective: customer satisfaction.

As integral members of large corporations' value chains, the adoption of sustainable practices provides SMEs an advantage in working with these organizations (Freisleben, 2011; Moore & Manring, 2009).

While large corporations are customers for many SMEs, they can also be competitors. As consumer demand for sustainable business practices increases and large corporations can demonstrate they are meeting those needs, SMEs' competitive advantage could be compromised.

4.3.4. Imminent regulation

While converting to renewable sources and minimizing waste can produce cost savings for SMEs, many environmental regulations have the potential to increase costs to businesses. With increasing global pressure to transition to a green economy, regulation will only increase. SMEs proactive in adopting new technologies prior to regulation have the time to experiment and find the most cost-effective approach for their organizations.

4.3.5. New opportunities

Sustainable development will require a new way of thinking, new processes and business models (Holliday et al., 2002). As one competency of SMEs is their ability to improve existing products/services and create new ones, SD can be viewed as a tremendous opportunity for this sector (Jenkins, 2009; Lefebvre & Lefebvre, 2012; Stubblefield Loucks et al., 2010). As important innovation is to sustainable development, it is the basis on which SME Innovators create value: niche markets and product differentiation.

4.3.6. Ethics

> *"Indeed the modern organization was expressly created to have results on the outside, that is, to make a difference in its society or its economy." ~ Peter Drucker, Management guru*

Businesses – both large and small – have an obligation to be good corporate citizens. It is their "license to operate" (Sexty, 2011). Most SMEs are rooted in their communities and are greatly impacted by the local economy and environmental conditions (Medina-Munoz & Medina-Munoz, 2000; Moore & Manring, 2009). Healthy, prosperous and diverse communities ensure the long-term viability of any organization. "Business cannot succeed in societies that fail" (Holliday et al., 2002). In actively cultivating equity and preserving the environment – improving the standard of living and well-being of society as a whole – local SMEs improve their business opportunities.

SMEs are motivated more by metrics such as quality, customer service, employee satisfaction and ethics than by profit maximization. SMEs naturally embrace sustainable principles as a result. Creativity and innovation are further nurtured when SMEs view current business models, and products/services through the sustainability lens (Lefebvre & Lefebvre, 2012; Stubblefield Loucks et al., 2010).

5. ROADMAP FOR SUCCESS

"The stone age didn't end because we ran out of stones." ~ Shiekh Zaki Yamani, Former OPEC Foreign Minister

Sustainable development "will require types of partnership never before witnessed in human history" (Holliday et al., 2002). Until the tipping point is reached where sustainable development is perceived as an opportunity instead of an obligation (commitment vs. compliance), and embraced by all stakeholders – government, large corporations & consumers – SMEs will be slow to embrace its principles. SMEs need to be engaged in the same manner in which they do business: locally; personally; within networks and associations with whom they trust and regularly interact. Governments, NGOs, large corporations and SMEs themselves can implement several initiatives that will greatly contribute to SME commitment.

5.1. Government & NGOs

5.1.1. Walk the talk

"Without political leaders willing to push change via policy, citizens and corporations are left to grapple with whether and when to change their own behaviours and standards."
~ The Regeneration Roadmap (2012).

Government, like big business, is frequently slow to adopt new protocols and processes. For example, although LEED (Leadership in Energy and Environmental Design) is being adopted by many governmental bodies, new building processes such as vegetated roofs and water catchment systems have been disallowed by many; conventional paving remains a requirement for Albertan municipalities even though recycled asphalt is a proven green technology. Incorporating sustainable technologies in governmental procurement standards both encourages and supports environmental innovation.

5.1.2. Minimize bureaucracy and scale costs

Requiring SMEs to adopt rigorous reporting procedures or obtain complex certifications may prove not only to be ineffective, but also counterproductive (EC, 2004; Large, 2012). It runs the risk that SMEs will focus more on compliance than adopting valuable sustainable practices, or worse – turn them off SD altogether. Widely accessible and easy to understand standards and guidelines, as well as simplified versions of reporting and labeling programs, would be better embraced by the SME community (EC, 2004; WBCSD, 2007).

SMEs already bear a disproportionate burden of regulatory costs (Deveau, 2013) and will be reticent to introduce SD initiatives if additional red tape is required. By reducing the cost of regulation and streamlining approval processes for sustainable systems and products, SMEs will be encouraged to channel their capital towards initiatives that provide solutions for the future.

5.1.3. Restructure incentives and facilitate funding

Existing policies and market incentives have allowed businesses to externalize social and environmental costs and have supported non-renewable technologies (UNEP, 2011). For example, in 2008 global subsidies for fossil fuel consumption were estimated at US $557 billion (UNEP, 2011). Subsidies that promote the depletion of natural capital and use of non-renewable resources discourage the investment in and development of sustainable methods. While the Canadian oil and gas industry is controlled by large corporations, the majority of clean tech companies are SMEs. Eliminating these subsidies and establishing a strong clean energy plan would contribute to providing some of the certainty needed to attract capital investment and commitment to sustainable technology development (de Sousa, 2013).

Many grants and programs specific to SMEs focus on growth, such a funds for equipment purchase, without consideration of the sustainable properties of the initiative. Restructuring these incentives to specifically promote green technologies can provide much-needed capital and mitigate SMEs’ risk in adopting or creating SD initiatives. It should be noted that application requirements for such programs should be structured as per the recommendations above: simplified, easily accessible with a fast-tracked approval process.

Governments can implement policies to facilitate and promote private investment in SME businesses as well. Providing loan guarantees and tax incentives can mitigate the risk venture capitalists and traditional lending institutions perceive in investing in small and start-up organizations and new technologies. Crowdfund investment (a new structure raising small amounts of capital from a large number of investors) is believed to become a significant source of financing for SMEs but is currently not legal in many countries (Invest Crowdfund Canada, 2012). Legalizing the structure, and promoting SD business models and practices within this investment mechanism would encourage SMEs to focus on these opportunities.

5.1.4. Build connectivity and capacity

Because SMEs are rooted in their communities and greatly impacted by local conditions, the greatest impact will be achieved shaping sustainable initiatives at a local or regional level (EC, 2012a; WBCSD, 2007; WWF, 2005). International agencies speak the same language as international businesses; SMEs identify with smaller, regional entities. National/ international governments and NGOs can partner with local representation (municipalities; chambers of commerce) to translate broad initiatives to local scale. This provides the benefit of worldwide expertise to develop a web of local solutions to global issues.

Educational avenues such as universities, business schools and entrepreneurship development centres can be encouraged to add SD to their curriculums and support services. Funds specifically flagged for sustainable entrepreneurship agendas (as opposed to business survival/ success education) would be most effective. Research on sustainable technologies can be supported within the academic community and bridges built for SMEs to commercialize same.

5.2. Large Corporations

> *"We as global companies can provide the catalyst to partner with SMEs to mutual benefit. We can access their local expertise and markets; they can access our technologies and business skills for local momentum." ~ Michael Pragnell, CEO, Sygenta*

5.2.1. Maximize influence

Rather than the typical scorecard used by large corporations, Schatsky (2012) suggests these companies should "invest in suppliers' success". Merely requesting information from suppliers is not sufficient to engage them. "Suppliers often don't have a clear idea of what is expected of them and where to focus their own sustainability efforts" (ibid.). His company's four stage engagement process (see **Figure 1**) is one mechanism to improve two-way communication. This provides vital information to each side for continual improvements in the SD efforts of both. Corporations can reward committed participants by creating a preferred vendor program, sharing cost savings/income generation and/or providing access to company resources for joint venture opportunities (EC, 2004).

Figure 1 – Stages of supplier sustainability engagement

Source: Green Research, Schatsky (2012)

5.2.2. Share resources and expertise

The resource poverty of SMEs is likely the most common argument for why they have been slow (or unable) to transition to sustainable enterprises. In many industries, technology is no longer a barrier to environmental sustainability efforts (Caulfield, 2012), however this technology (or the expertise with which to incorporate it) may still be unavailable to smaller enterprises. Companies that share their expertise with their suppliers can accelerate suppliers' performance gains and ultimately improve their own (Schatsky, 2012).

5.2.3. Capitalize on the strengths of SMEs

> *"Our approach of being an open-minded company seeking to co-design new solutions with our stakeholders… contributes to our overall long-term performance." ~Franck Riboud, CEO, Danone*

"The more progressive multinationals understand that to innovate, they often don't do it very well internally" (Marshall, 2012). Many large corporations acquire SMEs who have developed innovations valuable to their operations, however a large percentage of mergers and acquisitions fail to deliver anticipated benefits (Moore & Manring, 2009). Alternatively providing SMEs with the much-needed capital to develop sustainable products and processes produces win-win scenarios: innovation is expedited through the SME without the pitfalls of assimilation; scalability is available through its larger partner.

As closed loop systems become prevalent, mechanisms to recover materials to reuse in the production process will be necessary. Such services are better suited to SME partners, allowing manufacturers to focus on their core operations. To develop these processes successfully, corporations need to engage in conversation and develop relationships with suppliers to strengthen capabilities (Mohr et al., 2012).

5.3. SMEs

5.3.1. Collaboration (networks/alliances)

SMEs most committed to SD freely share information, are active members of networks and industry trade associations (Millard, 2011; Revell et al., 2010). Research suggests SME owner/managers prefer to learn from their peers, frequently viewing competitors (other industry members) more as colleagues than enemies (Revell et al., 2010; Spence, 2007). While Hart and Milstein (1999) caution that "collaboration among competitors can serve to perpetuate the current industry structure", Spence et al. (2011) suggest these interactions create normative pressure for participating firms, increasing the commitment to sustainable practices of all.

Alliances within the SME business bloc – either within or across industries – can enable participating companies to promote like-minded agendas, share risks, costs and expertise. This pooling of resources allows SMEs to become more competitive with their larger counterparts. Moore and Manring (2009) compare the effectiveness of networks of SMEs and large corporations to networked PCs and mainframe computers: the former can be much more efficient in the 21st Century marketplace of rapid change by capitalizing on the fluidity and nimbleness of its multiple members.

An alliance can also serve to promote relationships between SMEs and large corporations. While SMEs are well suited to developing sustainable innovations, they need to expertise to successfully deliver and market their creations. As an example, Sustainable Development Technology Canada (SDTC), an alliance for clean-tech companies, serves both purposes. While it supports small companies in attracting capital and developing competencies, it also acts as a liaison between clean-tech SMEs and the larger corporations whom they serve. "Conversations between an SME and multinational [can be challenging]… SDTC operates as a very useful bridge between the two" (Marshall, 2012).

5.3.2. Knowledge

Gaining a deeper understanding of environmental and social issues is important; understanding how to translate this understanding into viable business practices is critical. While SME owner/managers aren't in a position to invite the great SD thinkers into their companies' Board rooms (if one even exists), they can amass knowledge through books and online sources. Participating in the networks and alliances discussed above can reinforce these concepts and help put them in context to their respective businesses (Stubblefield Loucks et. al., 2010). SME owner/managers who embrace sustainable principles may be reticent to boast about their initiatives to their customers, but are very willing to share when it involves promoting the wider acceptance of these ideals (Jenkins, 2009). Millard (2011) concluded that higher level learning was facilitated within networks of broader groups, and enabled companies to see environmental issues in a broader perspective.

Developing mechanisms to transfer the tacit knowledge of the owner/ manager and explicit knowledge gleaned from outside the organization throughout the organization is important to ensuring successful SD outcomes.

5.3.3. Leadership

> *"If you think you're too small to have an impact, try going to bed with a mosquito." ~ Anita Roddick, Founder, Body Shop*

The primary differentiator between a sustainability leader and laggard is personal commitment. As repeatedly concluded in case studies and reinforced throughout both business and academic literature, it is leadership that determines results.

When the question "Why aren't there more Ray Andersons [SD leaders]?" the most frequent responses referred to traits rarely used to describe SME owner/managers: greed; lack of ethics; fear of trying new things (Makower, 2012). While a few individuals start businesses with "get rich" aspirations, they are the exception. The majority of small business owners have other motivations - disenchantment with "big business" philosophy; fulfilling an unmet market; improving their quality of life; pursuing a passion; making a difference. Many wish to leave a legacy to their children. But what benefit is a passing a business down through the generations if it is not partnered with passing down a healthy, vibrant, naturally beautiful world in which the business can continue to prosper?

The challenges SMEs face should not be marginalized, however strong leadership with a clear vision can mitigate these issues. Leadership is about vision, buy-in, empowerment and, most of all, producing *useful* change. Leadership is not about attributes, it's about behaviour. Leadership sees possibilities rather than limitations; asks "How can we?" instead of explaining "Why we can't". And isn't this entrepreneurship in its truest form?

5.4. Collectively

While this roadmap has examined how different stakeholders – including SMEs themselves – can contribute to SD within SMEs, almost all solutions involve some degree of collaboration. Sustainability experts overwhelmingly view collaboration as "one of the few models that could catalyze solutions to the sustainable development challenges that we face at the speed and scale that we need" (GS/SA, 2012). Collaboration spreads risk and allows access to expertise and diverse perspectives unavailable within a single organization (ibid; Millard, 2011). Each stakeholder group brings a different strength to the table; each organization within these groups a unique perspective:

- **Governments** – the ability to set policy; create regulation and market instruments to support demand, encourage innovation of and investment in sustainable technologies.

- **NGOs** – objectivity and credibility to develop and administer independent assessments and to support consumer confidence; provide guidance for implementing and maintaining best practices.

- **Large corporations** – global reach; a wealth of resources to affect significant change through scalability.

- **SMEs** – drivers of innovation; a strong moral compass to influence business decisions and a deep understanding of local issues.

- **Consumers** – consumers *are* market demand; they need to understand how to purchase, use and recycle responsibly; be willing and committed to doing so.

While all will benefit through collaboration in moving toward a sustainable economy, SMEs will also realize benefits to their individual organizations' operations:

- As new policies are being developed, participation challenges specific to their businesses (and business size) can be considered.

- In truly partnering with multiple stakeholders, new opportunities for competitive advantage will become available.

- Knowledge transfer is facilitated with minimal cost.
- Leveraging the resources and expertise of others reduces their business risk in developing new business models and/or introducing sustainable products. This also mitigates their primary challenge: resource poverty.

6. CONCLUSION

"The question becomes not 'growth or no growth' but 'what do you want to grow'?"
~ William McDonough

There is a compelling argument to engage SMEs in the SD battle due to SMEs' aggregate impact, organizational structures and economic function they provide. Most SMEs rely heavily on their local economies, are intimate with their customers and their owner/managers have stronger motivations than profit maximization. While sustainable development is a global issue, it requires local solutions. In addition, historically the majority of disruptive innovations have been introduced by SMEs and new business models will be required to transition to a sustainable economic model. Governments, NGOs and large corporations can facilitate the inclusion of SMEs through implementing policies and programs that take into consideration the resource poverty and lack of codification within these organizations.

There is an equally compelling argument to SMEs for embracing SD. In addition to their local economic reliance, most SMEs have an innate sense of responsibility to their customers and employees. This provides the incentive to participate in the betterment of their communities and, in adopting sustainable principles, they are better positioned satisfy these stakeholders. When SMEs view current business models and their products/services through the sustainability lens, creativity and innovation is nurtured, generating new opportunities for these organizations to thrive. To play their part, SME owner/managers must display leadership – developing their competencies and those of their organizations through awareness, knowledge and collaboration within networks and alliances.

To slay the 21st Century Goliaths, 21st Century tactics are required. While it has been demonstrated the SME Davids are critical warriors, today's giants cannot be slain by a slingshot alone. No one stakeholder has all the answers; no one business has all the resources. A collaborative approach between all stakeholders will most successfully develop solutions at the speed and scale necessary.

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Failure Forecasting in Thai SMEs: the Comparison of the MDA, Logit, Probit and ANN Models.

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Abstract

The prediction of the corporate bankruptcies has been an important and widely studied topic since it has significant impacts on bank lending decisions and profitability. In this paper, we compare the accuracy of the four forecasting models in predicting the failure of SMEs in Thailand. The four model testes were the Multiple Discriminant Analysis (MDA), Logit, Probit, and Artificial Neural Network (ANN). The study used secondary data in the financial statements from the year 2011 to predict the situation of companies in 2012. A total of 30,463 companies formed the sample, of these, 19,903 were classified as failed and 10,561 as non-failed. The findings showed that the ANN was consistently more accurate than the Logit model, the MDA, and Probit models. This paper makes four critical contributions: 1) ANN, Logit, MDA and Probit. Their prediction and performance are still able to provide highly-accurate forecasts of financial survival; 2) empirical results show that ANN method provides the best prediction performance for imminent bankruptcies, in particular the ANN has high accuracy in non - failed group; 3) we show that Logit, Probit and MDA provide the high prediction performance for the failed group; and 4) SME data are diverse and very different. The models are a simple linear which may cause serious errors in predicting.

Key words: SME failure; Probit, Logit; Multiple Discriminant Analysis; Artificial Neural Network; Forecasting

Introduction

Corporate failure prediction has long been an important and widely studied topic in accounting, auditing, and finance. Corporate, lenders and shareholders need to predict the possibility of default of a potential counterparty before financial failure. In particular, the small- and medium-sized enterprises (SMEs) play an important role in a nation's economy. In many countries, they make substantial contributions to employment and comprise the majority of businesses (Bushong, 1995; Burns & Dewhurst, 1996; Holmes*et al.*, 2003). In developing countries, the small-scale businesses are the most important source of new employment opportunities. Governments throughout the world seek to promote economic progress through a focus on small-scale enterprises (Harper & Soon, 1979).

In Thailand, SMEs are classified into three major categories. These are 1) production, including agricultural processing, manufacturing and mining, 2) services, and 3) trade, including wholesale and retail companies. The Thai definition of an SME is based on either the number of employees or the total value of fixed assets, depending on the business sector (Institute for Small and Medium Sized Enterprises Development, 2011). SMEs are the important contributors to all economic sectors; they form more than 99% of the total number of businesses in the country and play a significant role in employment and growth distribution in areas outside the Bangkok metropolitan region. Specifically, their contribution to employment was 76.7% of total employment in 2011, with approximately 70% of businesses being located outside the Bangkok metropolitan area.

Despite the considerable costs involved in the failure of a company and the significant contribution of SMEs to the economy, relatively few studies have focused on SME survival or failure. For example, in Thailand, most studies have looked at failure or financial distress related to listed companies, (e.g. Yammeesri & Lodh, 2003; Graham, King & Bailes, 2000; Tirapat & Nittayagasetwat, 1999; Persons, 1999).

By using the data from SMEs in Thailand, the study was based on a sample of 2011 financial statements, which were used to predict the situation of companies in 2012, this study documents that the Probit, Logit, and Artificial Neural Networks (ANNs) models which were used in this study achieved higher prediction accuracy and possess the ability of generalization. The Probit and Logit models possess the best and stable performance. However, if the data does not satisfy the assumptions of the statistical approach, then the ANN approach would demonstrate its advantage and achieve higher prediction accuracy. In addition, the models which were used in this study achieved higher prediction accuracy and possessed the ability of generalization more than those of Altman (1968), Ohlson (1980).

The study provides a better understanding of the factors leading to SME success or failure, and an ability to predict their financial situation and protect them from insolvency. It also compares the predictive accuracy of these four most commonly used forecasting models. The models used here may help investors, creditors, managers, auditors and regulatory agencies in Thailand to predict the probability of business failure. The findings may also offer support for governance mechanisms and help to formulate future policy.

A Review of Bankruptcy Prediction Models

Traditional failure prediction models that employed statistical techniques were pioneered by Beaver's univariate tests (Beaver, 1966) and Altman's multivariate discriminant analysis (MDA) (Altman, 1968). Statistical prediction models also include linear probability model (LPM), Logit regression approach (LR) (Ohlson, 1980). The results of Ohlson, 1980, show that the Logit model predicts the corporate failure well. Probit regression approaches. However, the most widely-used models are MDA and LR (Altman, & Narayanan, 1997; Atiya, 2001). The early wave of the literature documented that, to name a few, MDA models were used in Altman (1968) and Deakin, (1972). While Probit models were used in Zmijewski (1984). There is comparison of traditional statistical approaches such as Canbas, Cabuk& Kilic (2005) used MDA, Logit and Probit to predict the failure of corporate. The results showed that, the prediction ability of MDA model was higher than those of Logit model and Probit Model. However Tzong (2009) found that the Probit model possesses the best and stable performance.

Not until 1990, neural network (NN) approaches have been introduced in the field of failure/bankruptcy prediction, Coats & Fant (1993), Carvalhal & Ribeiro (2007). Wilson & Sharda (1994) and Zhang & Patuwoet (1999), to compare between NN and traditional statistical approaches. Their experimental results showed that NN significantly outperforms other methods. However, Rekha Pai et al. 4(200) used the MDA and ANN in the field of prediction of company financial distress. The results showed that the prediction ability of MDA model was higher than that of ANN. Therefore, it cannot be concluded that which one is the most effective model.

Other studies have explored SME survival or failure in various countries using different empirical methodologies (Libby, 1975). Bahnson (1987) carried out a study in San Francisco that predicted business failure. Other studies using the Logit model have been carried out by Aziz (1984), Casey and Bartczak (1984), and Darayseh, Waples and Tsoukalas (2003). There are the studies that have looked at the application of the Logit model for forecasting financial failure of SMEs in Thailand (Chancharat & Chancharat, 2011). Different models have resulted in different findings. In this section, we will compare four failure prediction models: MDA, Logit, Probit, and ANN in predicting SME failure in Thailand. The results of our study may be useful in providing a warning of the financial problems of SMEs before the business actually fails.

Methods

Financial accounting data characteristics of 30,463 SMEs in Thailand were obtained from the Department of Business Development of the Ministry of Commerce. SMEs were classified as the failed one if they had entered receivership, been liquidated, merged or been declared bankrupt. Otherwise they were classified as non-failed one.

In order to estimate the predictive accuracy of the MDA, Logit, Probit and ANN models, we used financial ratios as the core independent variables. Specifically, 1) current liabilities as a percentage of sales, 2) net capital assets, 3) net sales and 4) earnings before interest and tax liabilities. These data (e.g. balance sheets and income statements) were collected in 2011 and 2012 from the Department's website which provides the most up-to-date set of financial statements. As the data contributed to the predictive model, it was important that the sample was complete and accurate. Therefore, the data used for the test were derived from financial statements and only included businesses with complete records. SMEs with missing data (e.g. current assets equal to zero) were excluded and the final sample consisted of 30,463 SMEs; of these 19,903 were classified as 'non-failed' and 10,561 were classified as 'failed'.

The estimated coefficients and standard errors of the parameters for the MDA, Logit, Probit, and hidden layer, number of cycle of ANN models, are shown in Table 1.

Table 1
MDA, Logit, Probit, ANN Estimates

	MDA		**Logit**		**Probit**		**ANN**	
Variable	**Coefficient**	**Std. Error**	**Coefficient**	**Std. Error**	**Coefficient**	**Std. Error**	**Hidden layer**	**Cycle**
Constant	-	-	0.623***	0.015	0.410***	0.008	-	-
X_1	-0.310***	0.007	-0.065***	0.010	0.081***	0.005	-	-
X_2	0.280***	0.027	0.196***	0.019	0.077***	0.006	-	-
X_3	0.233***	0.156	1.327***	0.071	0.122**	0.010	-	-
X_4	0.796***	0.018	0.169***	0.005	0.060***	0.002	-	-
Other							10	1,000

Notes: * and **and *** indicate the level of significance at 0.10 and 0.05 and 0.01

X_1 = Current Liabilities /Sales
X_2= Working Capital Turnover / Total Assets
X_3= Net income / Sales
X_4= Earnings before Interest and Taxes/Current Liabilities

To evaluate the predictive validity of the model for 2012, we divided the overall sample into two training samples. The accuracy of the logistic regression models was evaluated using 'hold-out' samples.

A widely used measure of the predictive accuracy of a model is the percentage of correct classifications. Two types of misclassifications are possible. In this case, Type I errors incorrectly classify a firm in financial distress as healthy and Type II errors incorrectly classify a healthy firm as being in financial distress. The classification of a firm is determined by the cut-off value, which is set in order to balance Type I and Type II errors. A firm with a predicted value lower than this cut-off value is considered as being in financial distress; otherwise, it is classified as a healthy firm. In the Logit and Probit models, the cut-off point is set at 0.5. This score distinguishes between the failure and non-failure of a business. If the score is below 0.5, the company is classified as failed; whereas, if it is above 0.5, it is a non-failure (Vanichbuncha, 2008). The MDA model uses a score of 2.675 to distinguish between failure and non-failure. If a company scores below 2.675, the business is classified as failed; whereas, if it is above 2.675, it is a non-failure (Altman, 1968). Finally, the ANN weights using the initial 0.3 configure hidden equals 10, and the cycle is equal to 1000. ANN method differs from other models which will be determined by the intersection, which it is learned data. The data were divided into two parts; 70% of all data is 21, 326 to learning, and 30% to test, at 9,139.

Results

A comparison of the accuracy of the four models in forecasting the failure of SMEs is shown in Table 2.

Table 2 shows that the MDA model correctly classified 71.6% of companies. Type I and II errors occurred at about 44.7% and 19.3% respectively. The Logit model correctly classified 72.8% of businesses, with Type I and II errors at 74.1% and 2.3% respectively. The Probit model correctly classified 62.2% of companies, with Type I and II errors at 57.2% and 1.2% respectively. The ANN model correctly classified 85.0% of businesses, with Type I and II errors at 4.4% and 42.2 respectively. These results confirm the high predictive ability of ANN models. Particularly, the ANN model has efficient prediction of Type I error more than those of other models.

Table 2

Comparison of prediction accuracy of SME failure.

Model	**Business status**	**Survive (%)**	**Fail (%)**	**Forecasting accuracy (%)**
	Survive	55.3	44.7	
MDA	Fail	19.3	80.2	
	Total			<u>71.6</u>

Logit	Survive	25.9	74.1	
	Fail	2.3	97.7	
	Total			72.8
Probit	Survive	42.7	57.2	
	Fail	1.2	98.8	
	Total			62.2
ANN	Survive	95.6	4.4	
	Fail	34.2	65.7	
	Total			85.0

Finding in table 2 shows that the ANN method provides the best prediction performance for imminent bankruptcies, more than Logit, MDA, Probit models respectively, in particular the ANN has less type 1 error and type 2 error than other models. In addition to Logit has type 1 error at 74.1% and MDA, 57.2% and Probit, 44%, these three models give the high type 1 error but high prediction performance for financial survival.

Therefore, the ANN, Logit, MDA, Probit prediction performances are still able to provide highly-accurate forecasts to the financial survival. Empircal results showed that ANN method provides the best prediction performance for imminent bankruptcies; in particular, the ANN has less type 1 error and type 2 error than other models. It shows that Logit and Probit provide the high prediction performance for financial survival. However, these two models provide also high type 1 error; and SME data are diverse and very different. The models are a simple linear which may give high errors in predicting.

Finally, the study found that in general, the predictive accuracy of the four most commonly used financial distress models was lower when they were used with data 2011. It also found that failed SMEs have a higher debt ratio than those that survive.

Discussion and Conclusion

This study illustrates the power and limitations of confidence intervals for the estimated probability of bankruptcy. MDA, Logit, Probit, and ANN techniques were used. The analyses focused on the comparison of efficiency four models. The solutions provide optimal levels of the ratios for one-, two year predictions. Our results are consistent with the findings of the Aziz (1984), Tzong (2009), Casey and Bartczak (1984), Bahnson (1987), and Darayseh, Waples and Tsoukalas (2003). These results confirm the high predictive ability of the ANN model, which can accurately predict the business failure. The model consistently predicts SME failure more accurately than the Logit, MDA, and Probit models; although, the other two models also provide accurate predictions of failure in the year before the failure. The Logit and Probit models are also highly flexible, easier to use and understand than the ANN model. Of the four models, the ANN model is the most accurate and simple to use. The MDA model is consistently the least accurate; this could be due to the fact that it uses a higher cut-off point (2.675) to distinguish between failure and non-failure; whereas, both Logit and Probit models use 0.5 to make the distinction.

The findings are consistent with Zhang & Patuwoet (1999) which are higher than that of ANN models. Logit and MDA models contrast with the research. Tzong (2009) said that the Probit provides high performance prediction for financial failure. However, this paper contrasts conceder type 1 error and type 2 error, we show that ANN method provides the best prediction performance; it has lower error than other models. Because of the ability of the ANN model that can learn various and different styles, it can predict more accurately than other models. SME data are diverse and very different. The models are a simple linear which may cause high errors in predicting.

Future work could integrate other variables such as corporate governance and financial variables into the financial distress prediction models and compares their predictive ability with the results of this study. However, we should separate out line data as variables to consider, it affects the ability to predict the four models. Finally, other test samples could be used to evaluate the relative performance of the four models. In addition, this can be explained by the tendency of the equity markets to be highly predictive, not only of the health of a firm, but also of the health of the economy, which in turn affects the creditworthiness of the firm.

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Leadership Styles in Global Organizations

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Abstract

There is an ongoing demand for leaders that are able to work across global borders and influence best practices. Six Western leadership styles: Visionary, Coaching, Affliative, Democratic, Pacesetting and Commanding are compared to traditional and contemporary Asian leadership styles. The style of leadership may change based on stakeholders and leader objectives. In today's global marketplace, stakeholder and leader objectives may be differencing and require alternative methods of resolution. The author argues that a leader is most effective when styles are tailored/used together to achieve overall harmony between necessary stakeholders. Rather than driving one particular style which may be detrimental to a global organization, Western corporations may gain insight into a harmonious versus aggressive model of leadership. To explore this issue, the author proposes developing a Leadership Scale for global organizations to effectively examine the nature of leadership traits combining both eastern and western influences. Critical analysis is needed to influence future study of leadership economics.

Keywords: leadership, leadership economics, cultural capital, management styles

Introduction

In an increasingly globalized world, the nature of international business and commerce is constantly evolving (Cantwell, Dunning & Lundan 2009). While much of this has to do with cross-cultural differences and technological innovation, the type of leadership adopted by business executives plays an equally important role in determining the success of global organizations (Dorfman et al. 2012). This is an interesting addition to detail, particularly with reference to multinational corporations, considering the powerful dynamic between politics and business expansion in recent years (Jackson & Deeg 2008). All things considered, globalization is not the only factor that strengthens integration between parent and host companies around the world, for it also depends largely on the organizational culture which defines international business – a culture that essentially reflects the leader (Zheng, Yang & McLean 2010). Subsequently, the notion that leadership traits are innate or inherent is easily dismissed as a modern myth in today's corporate world. Many successful CEOs claim to have learned and developed these traits overtime through observation, trial-and-error learning and experience (DeRue et al. 2011).

Management versus Leadership

In an attempt to be successful, business executives are known to experiment with a number of different leadership styles, many of whom are noted as pioneers in the field of marketing and entrepreneurship (DeRue et al. 2011). Indeed, in such cases, names like Steve Jobs and Richard Branson come to mind, for these are men who revolutionized the art of modern leadership in the West, generating astronomical profits from their unique business ventures (Bel 2010). Despite the benefits of experimentation and innovation in leadership styles, however, it is important to keep in mind that there are two diametrically opposed styles which have little to nothing in common (Wendt, Euwema & Van Emmerik 2009). As such, they remain the subject of much debate, particularly when discussing which leadership style is most suitable in today's economic climate (Madlock 2008). While one of the two leadership styles is influenced by Asian traditions and discipline, the other is characteristically Western in nature, wherein both are distinguished for their cultural differences which are inevitably incorporated into their respective models of business (Wendt, Euwema & Van Emmerik 2009).

Before delving into the differences between Asian and Western leadership styles – and the possible reasons for them – it is imperative that we fully understand the role of leadership in its own right (Dorfman et al. 2012). This is to ensure that the term "leadership" is not confused or used interchangeably with management or administration, for though management and administration are an integral part of leadership, they are not a holistic representation of the phenomenon itself (Wendt, Euwema & Van Emmerik 2009). One who leads, also manages and administrates – but one who manages and administrates, does not necessarily lead (Carroll & Levy 2008). To truly understand and master the art of leadership, we must explore it as, both a process as well as a property, which is perhaps why it is fundamentally irreducible to a single definition (Holt & Marques 2012). According to Jago, "[…] The process of leadership is the use of non-coercive influence to direct and coordinate the activities of the members of an organized group toward the accomplishment of group objectives. As a property, leadership is the set of qualities or characteristics attributed to those who are perceived to successfully employ such influence" (Holt & Marques 2012).

Organizational Culture

There are several variations within the two primary leadership styles, and the effectiveness of each style is best analyzed when measured against a leader's goals and objectives (Chen & Miller 2011). There are a variety of definitions for leadership development, almost as many as the people who have attempted to define it (Carroll & Levy 2008). Certain skills and traits are generally considered to be the building blocks of successful leadership around the world, whether it is in politics or business in the East or West (Chen & Miller 2011). These skills weigh heavily on the scale of "emotional intelligence" – a measure that is growing increasingly popular among modern leaders, standing side by side with one's intelligence quotient or IQ (Müller & Turner 2010). When a person exercises these skills with consistency in a business environment, they ultimately shape his/her behavior, creating a distinct persona which is very much characteristic of a leader (Gooty et al. 2010).

As such, the language, religion, traditions and values of a country contribute significantly to the organizational culture of an international business, for they set the standard of what is and is not acceptable in a professional working environment (Wendt, Euwema & Van Emmerik 2009). This is popularly referred to as "culture clusters" and they play a key role in influencing one's style of leadership (Dorfman et al. 1997). In such cases, the leader is said to follow a culture-specific pattern of behavior to influence subordinates – a pattern quite popular in the United States, albeit limited in its cultural applicability beyond the borders (Wendt, Euwema & Van Emmerik 2009). A limitation of this magnitude, however, is often difficult to dismiss, specifically when it comes to multinational companies, for they thrive on successful partnerships with foreign firms (Dorfman et al. 2012). As with any partnership, it is imperative that both parties are familiar with each other's cultural background, for in doing so, they reflect national values when demonstrating business ethics on a public platform (Wendt, Euwema & Van Emmerik 2009).

Accordingly, critics argue that a leader is not required to constantly change the style of leadership based on local culture or the location of business transactions – also known as an "emic" or insider approach – but rather, (s)he should maintain universalist constructs within the leadership style in order to appeal to an array of people without wasting time, especially when conducting business abroad (Wendt, Euwema & Van Emmerik 2009).

The culture-specific versus culture-universal argument is, hence, an important one for it reveals a leader's flexibility and openness to ideas beyond the constraints of local or regional business, ultimately influencing the entire organization and all those involved in the process (Carroll & Levy 2008). Additionally, it also reflects the leader's overall strategy and plan to meet goals and objectives – which speaks volumes about his/her personal philosophy and ability to survive in the corporate world (Gooty et al. 2010). Pertaining to the culture-universal perspective, leaders are encouraged to adopt an "etic" or outsider approach to influence subordinates, stressing on universal traits which are said to be found in leadership around the world (Carroll & Levy 2008). The argument is strengthened by highlighting these constructs in leadership styles throughout a number of cultures in the East and West (Wendt, Euwema & Van Emmerik 2009).

In many cases, what appears to be a clash between different leadership styles is, in fact, simply a clash between different cultures and values. This stems from one's lack of familiarity with traditions other than one's own, which jeopardizes potentially profitable business relationships (Dorfman et al. 2012).

Western style leadership

The concept of leadership has undergone several stages of development in the United States, each one paving way for a new framework of business ethics, while sharing a common denominator which is epitomized as the very essence of Western leadership (DeRue et al. 2011).

According to recent studies, a leader's ability to exert control over individuals within and beyond the parameters of a multinational business relies heavily on his/her emotional awareness and ability to harness these emotions for greater success (Gooty et al. 2010). These emotions enable the leader to create an environment conducive to growth and creativity, in addition to motivating him/her to reach "self-actualization", which is described as the final stage in Maslow's hierarchy of needs (Goleman & Boyatzis 2008). Western leadership is most commonly understood through six foundational models, which are responsible for influencing the organizational climate of an international business (Testa 2009).

Each school of leadership came to prominence in various periods between the 20th and 21st century, focusing on various aspects of authority. Many historical figures contributed to the Western concept of leadership, including Plato, Hobbes, Machiavelli and Locke (Faulkner 2010). The concept of ideal leadership is based strongly on Aristotle's profound exploration of pathos, ethos and logos, wherein excellent leadership is that which aims to establish honest relationships with subordinates, uses moral vision to motivate and inspire others, and works primarily on the principles of logic (Mayer, Salovey & Caruso 2008). Turner and Müller (2010) list the six Western schools of leadership as the following:

1. The trait school.
2. The behavioral or style school.
3. The contingency school.
4. The visionary or charismatic school.
5. The emotional intelligence school.
6. The competency school.

The conceptualized image of Western leadership changed drastically in the 20th century, introducing a new perspective which focused solely on two essential functions of an ideal executive (Novicevic et al. 2009). Chester Barnard, an American business executive, famous for his work in management theory and organizational studies, termed these functions “cognitive” and “cathectic”, adding dimension to the otherwise monotonous role of a leader in business, whereby cognitive functions focus on guiding, directing, and limiting choices and actions, whereas cathectic functions incorporate emotional and motivational aspects of leadership to set goals and boost morale at work (Novicevic et al. 2009).

The emotional and motivational aspects of leadership became a prominent element of contemporary Western management in different spheres of international business (Mayer, Salovey & Caruso 2008). Goleman, Boyatzis and McKee (2008) published a detailed study on the emotional intelligence school of leadership, delving into the significance of emotional flexibility in a changing and uncertain business environment (p. 21). This research provided great insight into the psychological and emotional behavior of a leader and how deeply it impacts subordinates and their business performance (Müller & Turner 2010). In due course, this perspective became a cultural hallmark in Western style leadership, giving birth to an entirely new philosophy which entwined the principles of psychology with the overwhelming demands of a multinational corporation to underline an alternative discipline in international business (Goleman, Boyatzis & McKee 2008). Goleman et al. (2009) went as far as dividing emotional intelligence into four fundamental categories, listing eighteen competencies that are strongly tied to each of them. While two of these categories fall within the bracket of social competence, the rest are considered to be part of personal competence (Müller & Turner 2010). According to the study, the four categories are:

1. **Self-awareness:** This is the ability to identify one’s own strengths and limitations and act according to them. It requires one to be completely honest about one’s own personal assessment, so one may reach a deeper understanding of oneself. This allows a leader to be emotionally grounded and deal with stressful conflicts with patience and thoughtfulness, instead of making haste misjudgments in an otherwise unpredictable and suffocating environment (Goleman, Boyatzis & McKee 2009).

2. **Self-management:** Learning to manage others is, in large part, dependent on how one manages oneself. This plays a pivotal role in determining the assertiveness of a leader. In an effort to manage others, many leaders make the mistake of getting aggressive, which inevitably takes a negative toll on the entire organizational climate (Goleman, Boyatzis & McKee 2008). Self-management helps a leader retain control without crossing the boundaries of moral conduct and discipline.

3. **Social awareness:** Self-awareness is different from social awareness, in that, the latter highlights the significance of empathy (Koman & Wolff 2008). In a global organization, there is a hierarchical chain-of-command, and in order to maintain effective delegation and communication, a leader must ensure that (s)he is attuned to all those who actively participate in the process (Goleman, Boyatzis & McKee 2009).

4. **Relationship management:** This involves influencing others and motivating them to work together. Building relationships at work is of paramount importance, especially in a global organization, for it has a massive influence on effective leadership, reflecting the spirit and organizational culture to those working outside the business. Relationship-management not only involves maintaining healthy relationships among workers, but also requires a leader to connect with him/ herself and confront uncomfortable situations in the most productive fashion so that others can follow suit (Goleman, Boyatzis & McKee 2009).

Learning to adapt to unpredictable conflicts and communicating with difficult subordinates without condescension or anger is a skill that is easily mastered once the leader has reached a heightened sense of self-awareness (Mayer, Salovey & Caruso 2008). One of the reasons global organizations fail to adhere to rules laid down by those in charge is that, in many cases, leaders inadvertently abuse their power and authority by directing pressure outwards and creating dissonance between workers (Goleman, Boyatzis & McKee 2009). This dissonance is caused solely by exuding negative emotions in the workplace and failing to control the damage by withholding positive emotions (Goleman, Boyatzis & McKee 2008). Once a leader learns to soothe emotional pressure-points and overcome stress and anxiety effortlessly, (s)he is in a position to face any crisis head-on. In his research, Goleman (2008) deduced six styles of leadership that ultimately surface, taking into account one's level of emotional intelligence. These are described as visionary, coaching, affiliative, democratic, pace-setting and commanding (Goleman, Boyatzis & McKee 2009):

1. **Visionary:** This style of leadership is best exemplified through an inspirational leader – one who motivates others to turn shared dreams into reality, thus aiming for a win-win situation (Goleman & Boyatzis 2008). The fundamental feature of a visionary leader is his/her ability to understand people's perspective and channel their creative energy towards boosting productivity at work. As such, visionary

leadership is principally focused on instilling a sense of confidence within workers and helping them realize that they are valuable assets to the organization (Mayer, Salovey & Caruso 2008). Understanding people's personal ambitions is, therefore, an effective way to foster a harmonious relationship between the leader and subordinates, particularly for a business that is on the brink of collapse (Müller & Turner 2010).

2. **Coaching:** This style of leadership is founded on the principles of assistance and morale-building. As the name suggests, "coaching" has more to do with cultivating potential than striving for perfection. In other words, a coach encourages people to work to the best of their ability, which includes giving them personal assignments or challenges in order to reach individualized goals (Goleman, Boyatzis & McKee 2009). Coaching requires a tremendous amount of time and energy because the leader must pay attention to each member of the organization, providing feedback and advice on how they can work efficiently and fulfill personalized objectives (Goleman, Boyatzis & McKee 2008). Coaching relies on a leader's willingness to go the extra mile and connect with subordinates on an individual level, understanding their weaknesses and aiding those who are genuinely interested in climbing the corporate ladder (Goleman & Boyatzis 2008).

3. **Democratic:** A democratic leader has no reservations seeking assistance from subordinates, regardless of their place in the chain-of-command (Goleman, Boyatzis & McKee 2008). If we are to believe that true democracy is represented best by the voice of the people, then it is only fitting that democratic leaders in charge of global organizations pay heed to this voice, especially when they find themselves stuck in a professional crisis (Koman & Wolff 2008). This makes them particularly skilled in collaboration and teamwork, seeing as they make it a priority to include others in matters concerning the future of the business (Goleman & Boyatzis 2008). Democratic leadership demonstrates unity and concord between team-members, in addition to breaking the stereotype of a leader who is otherwise thought to be controlling, aggressive and inaccessible to those working under his/her command (Goleman, Boyatzis & McKee 2009).

4. **Affiliative:** It is important for a leader to develop emotional bonds with the workforce in an effort to maintain harmony and instill a sense of belonging within subordinates (Koman & Wolff 2008). This is one of the most self-defining characteristics of an affiliative leader, for it means being attentive to the emotional needs of employees and allowing them the freedom to work in a way that is best suited to their aptitude (Goleman & Boyatzis 2008). The affiliative leader is especially attuned to the emotional vibe of the organizational culture, and lays emphasis on effective communication, making it an essential requirement for smooth execution at work (Koman & Wolff 2008). It is worth considering that many global organizations tend to go into overdrive, resulting in a burnout that

backfires on the business. Accordingly, an affiliative leader ensures that everyone working in the organization is well taken care of, heard out and given the chance to prove him/herself (Goleman & Boyatzis 2008).

5. **Pace-setting:** This style of leadership models the coercive style, in that, leaders who adopt this approach tend to set very high standards in business performance and expect others to not only meet these standards, but be exceptional at what they do (Goleman, Boyatzis & McKee 2008). They lead by example and demand employees to follow suit, attaching paramount importance to perfection and excellence (Goleman & Boyatzis 2008). While it is true that pace-setting tends to get work done faster, and pushes people out of their comfort zone so they can achieve what may otherwise seem impossible, there are nevertheless potential drawbacks in this style of leadership (Goleman, Boyatzis & McKee 2008). Leading by example often seems to be fair and admirable, in a business setting, it tends to overwhelm subordinates who might find themselves incapable of producing work that is as great, if not better, than that of the leader's (Mayer, Salovey & Caruso 2008).

6. **Commanding:** This is a strictly coercive style of leadership which demands immediate compliance from workers, leaving no room for delay or negotiation (Goleman, Boyatzis & McKee 2009). If employees refuse to follow orders or show signs of reluctance, they are subjected to grave criticism and, at times, publicly threatened or humiliated. Such leaders are focused exclusively on getting the job done and closely scrutinize every inch of the business in an attempt to maintain control (Goleman & Boyatzis 2008). Commanding leaders do not delegate authority and use their influence to intimidate employees so as to establish a sense of superiority over them (Koman & Wolff 2008). Commanding leadership is most effective when there is a serious crisis at work, especially between employees; in which case, the leader is able to exercise control and settle disputes in an instant due to his/her overwhelming influence (Goleman, Boyatzis & McKee 2009). More importantly, leaders must remember to implement this style only when they rate highly on the scale of emotional intelligence, for without empathy, emotional-flexibility and self-control, commanding leadership has the tendency to destroy the organizational climate rather than strengthen it (Goleman & Boyatzis 2008).

Although there are several different styles of leadership which do not lay emphasis on emotional intelligence, Goleman's theory has gained considerable momentum in recent years, popularly noted in the West as a revolutionary development in contemporary leadership (Müller & Turner 2010). While the styles listed by Goleman (2008) have pros and cons, he subsequently warns leaders not to implement any one of the styles in singularity. In particular, leaders are advised to incorporate four specific styles into their overall leadership practice – those being visionary, coaching, democratic and affiliative.

When combined, these styles are proven successful, culminating in drastic improvements within the organization and boosting overall business performance (Goleman, Boyatzis & McKee 2009).

A leader who possesses the attributes of self-awareness and empathy, coupled with the ability to inspire creativity and visualize success, is a most sought after leader in the West for (s)he demonstrates all the necessary traits required to run global organizations in this day and age (Koman & Wolff 2008). At the same time, however, Western corporations are centered mainly on the contingency theory, which is a behavioral theory wherein leaders do not have a specific style or behavior pattern, but rather, alter behavior patterns in situational contexts (Wendt, Euwema & Van Emmerik 2009). Accordingly, excellent leaders are those who actively incorporate all of Goleman's six styles into their behavior, using each one where applicable or needed (Müller & Turner 2010). They actively practice transformational (people-oriented) leadership, leaning towards visionary, coaching, democratic and affiliative styles, but nevertheless reserve transactional (task-oriented) styles like pace-setting and commanding for instances when the subtlety of transformational leadership can be ineffective or erroneously mistaken for weakness (Goleman, Boyatzis & McKee 2008).

Asian style leadership

Leadership styles reflect, in large part, a leader's personal strengths and weaknesses – in addition to his/her cultural or geographical background (Dorfman et al. 2012). Today, Western corporations consider emotional intelligence to be the core of effective leadership, regardless of where business is conducted; as a result, however, they are kept from exploring other options (Müller & Turner 2010). They stand in stark contrast to Asian style leadership which, though heavily influenced by Eastern philosophy and traditions, is nevertheless equally applicable to global organizations for encapsulating profound wisdom and knowledge (Low 2010).

Just as the concept of ideal leadership was introduced in the West by some of the most influential names in history, so was it introduced in the East by renowned figures such as Confucius and Lao-Tzu (Rarick 2009). Confucius, in particular, shaped the structure of Chinese government for about 2,500 years, listing four virtues that an effective leader must possess: *Jen* (love), *Li* (proper conduct), *Xiao* (piety) and *Zhang rong* (the doctrine of the mean) (Low 2010). As opposed to the contingency theory so popular in the West, Asian style leadership is centered on ancient traditions and self-discipline, where morality, respect and loyalty play a pivotal role in determining the overall power and influence of a leader (Niu, Wang & Cheng 2009).

Western corporations may learn a lot from Asian leaders simply by observing their practices and how they mold culture and tradition into the framework of leadership to influence business performance (Lin 2008). The differences within various Asian leadership styles are largely dependent on the different regions of Asia which are described primarily as South Asia and Confucian Asia. This is to differentiate between the cultures and values of Asian countries wherein the South Asian cluster consists of India, Thailand, Malaysia, Iran, Indonesia, and the Philippines, while the Confucian-Asia cluster includes China, Hong Kong, Japan, Singapore, South Korea, and Taiwan (Resick et al. 2011) .

Japanese organizations are known to be influenced immensely by Confucianism, incorporating the philosophy into every aspect of the business to reap the benefits of effective leadership (Niu, Wang & Cheng 2009). The theoretical framework of Confucian philosophy in Japanese corporations is best exemplified through the theory of paternalistic leadership (Joy & Kolb 2009). Paternalistic leadership weaves fatherly benevolence and moral integrity into the very fabric of authority and discipline, whereby the relationship between the leader and subordinates is reminiscent of the father-son relationship, which is deemed superior to other relations within the family in terms of its power and legitimacy (Pellegrini & Scandura 2008).

The structure of business is largely hierarchical and unbending, reiterating the significance of loyalty to the leader (Niu, Wang & Cheng 2009). The focus on moral superiority makes Asian leadership considerably different from the kind practiced in the West, for it expects the leader to possess high moral virtues in order to inspire subordinates (Lin 2008).

Typically, paternalistic leadership portrays the leader as an ideal mentor who is fully aware of what is best for the organization at large (Pellegrini & Scandura 2008). As such, the relationship between the leader and subordinates is heavily influenced by the classic *Senpai-kōhai* system, which is modeled after the quintessential mentor-protégé relationship commonly found in Japanese tradition (Low 2010). The notion of “too much talk” is deemed futile and counter-productive to the organizational culture, which is clearly opposed to the candid communication so vehemently encouraged in Western leadership (Resick et al. 2011).

Conversely, Japanese leaders are known to suggest indirect, often vague instructions and guidelines to their subordinates for business projects, demonstrating a sense of trust in the workers’ ability through the popular phrase *“omakase”* (Pellegrini & Scandura 2008). This is very much in keeping with Japanese culture which focuses on creating harmony within the community. In an attempt to fuse the same principles in the structure of a global organization, Japanese leadership is centered strongly on collectivism, wherein the leader refrains from giving individual feedback to employees (Niu, Wang & Cheng 2009). Concurrently, compliments, rewards and/or criticism in a business setting are shared collectively by team-members in order to maintain the status quo of fairness, and similarly, to avoid any form of prejudice or favoritism on the leader’s part (Low 2010). Charisma is also believed to be characteristic of an ideal Japanese leader, though it must be noted that not all charismatic leaders are risk-takers by definition in Japan (Resick et al. 2011)

In China, Taiwan, Hong Kong and Korea, Confucianism plays an equally important role in effective leadership, although the more traditional aspects of the philosophy are essentially undermined in light of modern developments and Western influence (Niu, Wang & Cheng 2009). Authoritarianism, for instance, is no longer given as much importance as it once was; wherein the more conservative practices in business are deemed relatively outdated (Pellegrini & Scandura 2008). Nevertheless, the bureaucracy of paternalistic leadership is largely accepted as an integral part of organizations in these regions (Low 2010).

The fundamental difference here, too, surfaces in the form of cultural values adopted by ethnic communities and their conflicting beliefs regarding moral discipline and authority (Pellegrini & Scandura 2008). Foundational Confucian principles are still very much alive in the heart of Chinese, Taiwanese and Korean businesses (Low 2010). Moreover, moral conduct, honor and respect, together, underline a character which is considered truly admirable in Asian leaders (Low 2010). The leader tends to avoid confrontations in order to maintain a sense of team-spirit and harmony within the business, and avoids pointing fingers at specific individuals, which is otherwise likely to alienate members of the organization (Pellegrini & Scandura 2008). As opposed to Western style leadership, which lays great emphasis on communication, leaders in China, Taiwan, Hong Kong and Korea generally avoid discussing emotional conflicts, finding it unnecessary and contrary to the principles of their culture. In some cases, confrontations are even frowned upon for instigating “uncivilized behavior” (Chen & Miller 2011).

Indian organizations, though not particularly influenced by Confucianism, do, however, take after Chinese and Japanese corporations in that they define discipline and effective leadership in terms of local culture and tradition (Joy & Kolb 2009). In a typical Indian setting, any style of leadership which attempts to develop a distant, impersonal relationship between the leader and subordinates is likely to fail, for it goes against the conventions of social intercourse in India (Chawla & Joshi 2010). An ideal leader in an Indian corporation is considered to be one who treats subordinates as if they were all part of a close-knit family, encouraging each other to play an active role in personal occasions such as weddings and funerals (Chawla & Joshi 2010). This is believed to promote social harmony and strengthen emotional ties between Indian employees (Chawla & Joshi 2010). While it is true that this leadership practice would inevitably foster a sense of dependence among workers, Indian organizations are able to use this dependence to their advantage and boost productivity at work. The hierarchical, rigid structure of Indian organizations, requires a style of leadership that gives employees the comfort and security of knowing that a higher managerial rank is always there to maintain order and ensure everything is in place (Chawla & Joshi 2010).

Methodology

The proposed three – year project will be a mixed-methods research design suited to examine leadership styles in multi-national/global organizations and for the development of a leadership scale inclusive of eastern and western contributions.

The stages of the project include:
Stage-1: Initial investigation. Identification of 200+ organizations to participate. Develop focus group. The emphasis will be on defining themes and further issues to be investigated.

Stage-2: Preliminary data analysis with the design, development, and pilot testing of surveys based on the feedback from focus groups. The surveys will include Likert-scale items, close-ended questions and open-ended questions to investigate global leadership capabilities.

Stage-3: Quantitative data collection from census and government records. This will be coupled with qualitative data collection from interviews with selected MNEs.

Stage-4: Data analysis and interpretation of the findings.

Stage-5: Final project report and dissemination of the findings. During the summer of 2015, I will analyze the focus group data, design surveys and interview questions, and pilot test the surveys in order to refine them. Submission of a paper to disseminate preliminary findings are
expected in the Fall 2016.

Conclusion

Although there are several variations within Asian and Western leadership styles, it always helps to know the logic behind each one and its overall effects on a company. No specific style is good enough to be applied in an organization at all times, since every style has its own place for being effective in situations where others are not. However, it must be noted that much of these differences stem from the diversity of a global society, defined mainly by changing mindsets and an increasingly interconnected culture which thrives on globalization. This interconnected culture contributes considerably to the structure of a business, whether it is in the East or West. As nations grow closer in this day and age through technology, trade and transport, it is important to consider how much we have achieved simply by exchanging knowledge and resources across borders. In conclusion, the wide variety of leadership theories circulating within the East and West prove the extensive research into this field and its growing influence in international business. Accordingly, leaders around the world should learn as much as possible about this art in an effort to improve themselves and thus become more adaptable and flexible in an ever-changing world. By paying attention to the significance of emotional intelligence and concurrently incorporating culture and tradition to enhance leadership skills, a leader should ultimately lead unbarred by the limitation of borders.

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The Impact of Leadership and Group Characteristics on Coworker Exchange in an Asian Context

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Abstract

Guanxi, a unique type of reciprocal relationship prevalent in Asian economies influenced by Confucianism, not only affects how we interact but also how leaders treat their subordinates. Guanxi encourages in-group and out-group relationships between a leader and his/her subordinates, rendering differential leader-member exchange (LMX) relationships in organizational settings. The current study examines how differential LMX may influence group team-member exchange (TMX) – the degree of coworker reciprocations in a group. Based upon attitude theories, this study theorized that differential LMX relationships within a group would weaken the exchanges among coworkers. Building upon the literature of group characteristics, this study further proposed that both high group identification and members' low reciprocation wariness would provide opportunities for coworkers to reciprocate. Using data from 90 groups of accounting employees in Hong Kong, we found a negative association from differential LMX and reciprocation wariness level to group TMX, and a positive relationship between group identification and group TMX. Also, group identification served as a moderator, mitigating the negative impact of differential LMX on group TMX. Our findings further showed that group TMX mediated the impact of differential LMX and reciprocation wariness level on group performance. These findings suggest that if Asian leaders are to garner the benefits of improved group performance resulting from intensive coworker reciprocations, they are to refrain from relying on guanxi so as to reduce the degree of in-group-out-group differentiation among coworkers. They are also advised to strengthen members' group identification in order to provide a cooperative environment for subordinates to exchange and reciprocate.
Keywords: Team-Member Exchange, Leader-Member Exchange, Group Performance

INTRODUCTION

In organizations, work groups[1] are of increasing popularity for efficient and effective job completion. Based upon role theory, social exchange theory, and leader-member exchange (LMX) theory, Seers introduced team-member exchange (TMX) which refers to a focal group member's perceptions of his/her "willingness to assist other members, to share ideas and feedback and in turn, how readily information, help, and recognition are received from other members" (Seers, 1989). When extended to the group-level of analysis, group TMX represents the quality of the overall working relationships within a group. Considerable research has shown a positive relationship between group TMX and group performance (e.g. Eby & Dobbins, 1997; Jordon, Field, & Armenkis, 2002; Seers, Petty, & Cashman, 1995). In order to help practitioners garner the benefits of group TMX, researchers have to explore and identify the factors that may encourage or hinder the reciprocations among group members. Such exploration can not only enrich the theory of TMX but also inspire practitioners to develop and implement appropriate measures to improve coworker exchange.

To develop a more holistic understanding of attitudes and behaviors in work settings, exploration in both interpersonal and task domains is necessary (Liden, Wayne, & Sparrowe, 2000). Nevertheless, past studies of group TMX have paid scant research attention to these two domains. The current study aims to fill this research gap by looking into three relevant characteristics: differential leader-member exchange (LMX) relationships, group members' reciprocation wariness, and group identification. While the first two help explore the interpersonal domain, the last one helps explore the task domain.

The connection between leadership and various group processes has been evidenced in a wide array of research on group dynamics (Ehrhart, 2004). In the current study, leadership is also considered to be a factor affecting group TMX. Specifically, attention is paid to the within-group variation in the quality of the LMX relationships; in other words, differential LMX. A lot of interpersonal relationships in Asian economies that are influenced by Confucianism are characterized by guanxi. Not only does guanxi affect our daily interpersonal interactions but it also influences how leaders treat their subordinates in organizational settings. That is, it encourages in-group and out-group relationships between a leader and his/her subordinates, such that the leader tends to develop close, intimate relationships with those subordinates having guanxi and distant, formal relationships with

[1] While the term "group" is used in the paper, we draw on research related to both groups and teams.

those having no guanxi. This, in turn, generates differential LMX relationships in organizational settings which may impact the way group members interact.

Apart from the interpersonal relationship with the leader, group members' personality may affect their tendency to reciprocate. That is, if group members on average have the willingness to reciprocate – thus showing a low level of reciprocation wariness, group level TMX is likely to improve. On the other hand, social identity theory suggests that when group members are identified with the group, they are willing to share and reciprocate so as to achieve collective goals (Gundlach, Zivnuska, & Stoner, 2006), thus likely to strengthen TMX in the group. Finally, we investigate how group TMX may mediate the influence of these antecedents on group performance. The hypothesized model for examination is depicted in Figure 1.

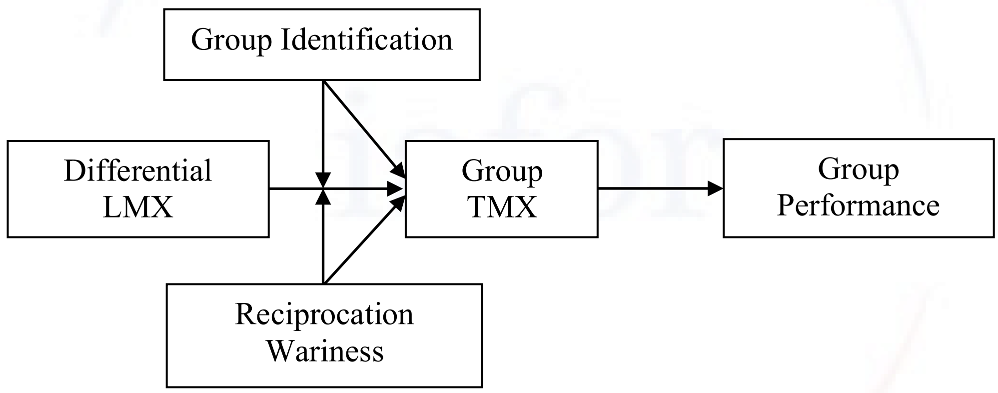

Figure 1. Hypothesized model linking antecedents, group TMX, and group performance

HYPOTHESIS DEVELOPMENT

LMX theory posits that, owing to limited resources such as time, power, and energy, leaders have to differentiate their treatments across subordinates (Graen & Cashman, 1975), leading to within-group differential LMX treatments. A high-quality LMX relationship is characterized by high levels of trust, respect, and mutual obligations (Graen & Uhl-Bien, 1995) which in turn generate positive attitudes such as liking, satisfaction, and commitment between the leader and the subordinate (Engle & Lord, 1997; Gerstner & Day, 1997) and vice versa. Then, according to balance theory (Heider, 1958), strain-toward-symmetry model (Newcomb, 1953), and congruity theory (Osgood & Tannenbaum, 1955) in the attitude literature, in a three-person structure consisting of a leader and two members of high-quality LMX, the two members will develop positive attitudes to each other. The same case will happen if the two members both have low-quality LMX. However, if a leader provides favorable treatments to one member but less favorable treatments to another member, these two members tend to develop negative attitudes such as resentment and dissatisfaction towards one another. These attitude theories therefore suggest that differential LMX influences group members' attitudes. Since attitudes are a pivotal predictor of behaviors (Eagly & Chaiken, 1993), group members' behaviors are further affected by differential LMX within the group. In fact, past studies have shown that limited communications and interactions and even interpersonal conflicts are experienced among members of dissimilar LMX quality (Boise & Howell, 2006; Hooper & Martin, 2008). Therefore, it is hypothesized that:

Hypothesis 1 (H1): Differential LMX has a negative association with group TMX.

While most, if not all, individuals respond to the norm of reciprocity (Gouldner, 1960), not all individuals show the same degree to which they follow this norm. Reciprocation wariness refers to one's level of "generalized cautiousness in reciprocating aid stemming from a fear of exploitation in relationships" (Shore, Bommer, Rao, & Seo, 2009: 705). Highly reciprocation wary individuals are less trusting and more suspicious of others' underlying motives. They fear that their exchange partners will take advantage of them in the exchange relationships or violate the norm of reciprocity (Suazo & Turnley, 2009). As a result, they tend to be self-protective by engaging in minimal reciprocal behaviors. Consequently, reciprocation wariness inhibits the formation, maintenance, and development of interpersonal relationships (Cotterell, Eisenberger, Speicher, 1992). It is thus speculated that when group members demonstrate a high level of reciprocation wariness, they are less involved in the exchange activities with others, leading to a lower level of group TMX.

Hypothesis 2 (H2): Reciprocation wariness level has a negative association with group TMX.

Social identity theory suggests that when one recognizes his/her own membership in a group, the perception of "oneness" with the group is established (Tajfel & Turner, 1986).

Experiencing high group identification, group members are unified into a socially identifiable whole. Such identification with the group serves as a framework for organizing and coordinating group members' performance-related behaviors. They are less likely to think, feel, and behave like an individual member of the group and be distracted by individual goals but instead are more motivated to share skills and resources with each other so as to achieve collective goals (Gundlach et al., 2006). In other words, group identification leads to group members' depersonalization (Turner, 1985). Under such circumstance, group members tend to show higher willingness to engage in reciprocations with other members. Therefore, it is hypothesized that:

Hypothesis 3 (H3): Group identification has a positive association with group TMX.

While it is proposed that group members' reciprocation wariness and identification with the group directly affect group TMX, it is further argued that they act as moderators in the association between differential LMX and group TMX. That is, the detrimental effects of differential LMX on group TMX are likely mitigated by a low level of group members' reciprocation wariness and a high level of group identification.

Differential LMX may further trigger highly wary group members to hold back their willingness to reciprocate. When the level of reciprocation wariness among group members is high, they show a tendency to respond to social exchange in a less positive manner. Highly reciprocation wary members focus on the favorability of their outcomes in the exchange process. Differential LMX signals that the quality of the exchange relationships between the leader and members varies within the group. Under this situation, the wary individuals may be even more cautious in engaging in exchange behaviors, for fear that their extending aid or receiving aid from others may result in being taken advantage of. When reciprocation wariness level is low, on the other hand, group members tend to demonstrate a positive attitude to extending and receiving aid regardless of the situation.

Differential LMX may be one of the culprits of the formation of subgroups (i.e. in-group and out-group) in a work group. Nevertheless, group identification may serve as a mechanism to "regroup" the subgroups. When group members are identified with the group, they are willing to help complete group goals even if they are requested to forgo their personal goals. As a consequence, they are motivated to interact with one another for the good of the group.

Through these interactions, group members are encouraged to have a better understanding of each other and to learn to appreciate others' characteristics and capabilities (Graen et al., 1982). They start to understand the reasons for differential leader treatments such as differences in abilities and work experiences, thus weakening their perceptions of differences or their negative attitudes towards each other. As a result, the in-group-out-group categorization caused by differential LMX is weakened while the saliency of one single group is strengthened, which in turn drive members to engage in more sharing and reciprocations (Cabera & Cabera, 2005). The following hypothesis is therefore developed:

H4: (a) Reciprocation wariness level (b) Group identification will moderate the relationship between differential LMX and group TMX such that the relationship is less negative when (a) reciprocation wariness level is low (b) group identification is high.

Group TMX is beneficial to group performance (Jordon et al., 2002; Seers et al., 1995). When group members experience effective working relationships in the group, not only do they receive useful feedback and social support from each other but they also become more aware of their abilities in completing tasks. This is likely to promote the in-role performance of the group. Together with H1, H2, and H3, we come to the following hypothesis:

H5: Group TMX mediates the impact of (a) differential LMX, (b) reciprocation wariness level, and (c) group identification on group performance.

METHOD

Sample and Procedure

A cross-sectional survey design was used. The initial sample comprised 152 work groups of full-time accountants from a large accounting company in Hong Kong. All group leaders and members were invited to participate in this study and they provided ratings on different variables. Hence, two versions of survey packs were designed – one for the leaders and the other for the members. This design could reduce common method variance. The survey packs were sent to potential respondents via the company's internal mail system. Each pack contained an introductory letter outlining the details of the research, voluntary participation, as well as an assurance of confidentiality, a questionnaire, and a reply envelop addressed to a researcher. The leaders were to provide ratings on their groups' in-role performance whereas the members were to provide ratings on their individual LMX quality, reciprocation wariness, group identification, TMX quality, and demographic characteristics. Each questionnaire contained an identification number to facilitate the researchers to match the leader questionnaire with the member questionnaires.

A hundred and twenty-nine questionnaires were returned by the leaders (response rate = 84.87%) whereas 537 questionnaires were returned by the members (response rate = 52.96%). Only those groups with more than two completed questionnaires returned from the members were included into the sample. The final sample consisted of 90 groups. Of the 90 leaders, more than half were males (58.89%) and Asians (92.22%). All had a bachelor's degree. Their average age was 39.2, average organizational tenure was 12.3 years, and average group tenure was 4.4 years. Of the followers, 232 were males and most were Asians (98.71%). All held a bachelor's degree. Their average age was 26.7, average organizational tenure was 5.4 years, and average group tenure was 2.1 years.

Measures

All responses were made on a seven-point Likert scale (1 = strongly disagree; 7 = strongly agree), except for the responses of individual LMX and demographic variables.

The seven-item LMX-7 scale (Gaen, Novak, & Sommerkamp, 1982) was used to assess individual LMX quality. The items' wording was modified to reference one's group leader. A sample item is "How well does your group leader know your potential?" The Cronbach's alpha reached 0.90. Differential LMX was operationalized as the intra-group variance in individual LMX scores, an approach consistent with the existing literature (Liden, Erdogan, Wayne, & Sparrowe, 2006). The ten-item measure of reciprocation wariness (Lynch, Eisenberger, & Armeli, 1999) was used. A sample item is "I feel used when people ask favors of me". The reliability was 0.76. Reciprocation wariness level was operationalized as the group average of individual members' reciprocation wariness scores. By modifying the wording to reference one's group, six items were used to assess one's identification with the group (Mael & Ashforth, 1992). A sample item is "When someone praises this group, it feels like a personal compliment". The measure had a coefficient alpha of 0.81. Group identification at the group level was operationalized as the average of individual members' scores within the group. Individual TMX was measured by Seers' 10-item measure (Seers, 1989). The wording of the items was adjusted to reflect the reference to the group with a sample item as "I often make suggestions about better work methods to my fellow group members". The measure showed a coefficient alpha of 0.89. Group TMX was operationalized as the average of individual TMX scores within the group (Seers et al., 1995). Group leaders provided ratings on group performance. Five items were used to assess group performance (Zellmer-Bruhn & Gibson, 2006). A sample item is "My group accomplishes its objectives." The reliability reached 0.90.

Considering that group size and demographic composition may influence group dynamics and outcomes, we included group size and group diversity as control variables[2]. Also, since the average of group members' individual LMX quality within a group (LMX level) may confound the impact of differential LMX (Boise & Howell, 2006), LMX level was controlled when testing H1, H4, and H5a.

ANALYSIS AND RESULTS

Group TMX and group identification represented group phenomena derived from the lower-level individual perceptions. A consensus composition model (Chan, 1998) was used for these phenomena. The r_{wg}, ICC(1), and ICC(2) values for group TMX were 0.87, 0.19, and 0.59, respectively. For group identification, r_{wg} = 0.83, ICC(1) = 0.15, and ICC(2) = 0.60. These values suggested that aggregation of individual data to the group-level of analysis was appropriate.

When group TMX was regressed on the three predictors in H1 to H3 in three separate regression models, the standardized regression coefficients of all predictors were statistically significant (differential LMX: β = -0.362; reciprocation wariness level: β = -0.451; group identification: β = 0.493), thus lending support to H1, H2, and H3. To test H4a, the predictors differential LMX and reciprocation wariness level were first mean centered to reduce multicollinearity. The unstandardized regression coefficient of differential LMX (B = -0.334;

[2] Since the regression coefficients of group size and group diversity were not statistically significant in regression analysis, we removed them as control variables to increase the degrees of freedom. The regression results remained the same.

p = 0.069) was marginally significant; that of reciprocation wariness level (B = -0.347; p = 0.000) was statistically significant; and that of the product term (B = -0.162; p = 0.535) was not significant. Thus, reciprocation wariness level did not interact with differential LMX, showing lack of support to H4a. Mean centered scores were also used for testing H4b. The unstandardized regression coefficients of differential LMX (B = -0.395; p = 0.020), group identification (B = 0.359; p = 0.000), and the product term (B = 0.629; p = 0.038) were all statistically significant, suggesting that group identification moderated the relationship between differential LMX and group TMX. H4b thus received support.

Finally, to test the mediating role of group TMX in H5, the predictor (differential LMX, reciprocation wariness level, and group identification) was first entered into the regression equation with group performance as the dependent variable, followed by the proposed mediator. If the predictor turned from being statistically significant to non-significant after the addition of the mediator, then mediation effects were evidenced. Three regression models were tested, one for each predictor. When differential LMX was the predictor (H5a), its regression coefficient turned from statistically significant (β = -0.251; p = 0.019) to non-significant (β = -0.142; p = 0.194) whereas the regression coefficient of group TMX was significant (β = 0.300; p = 0.007). Likewise, when reciprocation wariness was the predictor (H5b), its regression coefficient turned from statistically significant (β = -0.219; p = 0.036) to non-significant (β = -0.069; p = 0.546) whereas the regression coefficient of group TMX was significant (β = 0.317; p = 0.008). When group identification was the predictor, the regression coefficient was non-significant without the mediator included in the model (β = 0.099; p = 0.357). Therefore, these findings suggest that group TMX mediated the influence of differential LMX and reciprocation wariness level on group performance, supporting H5a and H5b.

DISCUSSION

With the increasing prevalence and reliance on work groups in contemporary work settings, employees are expected to spend more time on interacting with their peers than with their leaders, and to demonstrate greater collaboration, flexibility, and adaptability so as to help their groups achieve the goals. Although Asian economies are relatively higher in collectivism than economies in the West, there is no guarantee that group members in Asian economies are likely to engage in more effective exchange relationships. Accordingly, a deeper and richer understanding of coworker reciprocations in the East becomes desirable.

Using a Hong Kong sample, our findings show that while differential TMX is detrimental to group TMX, a low level of reciprocation wariness and a high level of group identification are beneficial. In addition, group identification can mitigate the negative impact of differential LMX on group members' reciprocations. The influence of differential LMX and reciprocation wariness level on group performance is further mediated by group TMX.

The current study makes theoretical contributions. First, it contributes to the social exchange literature by connecting two prevalent forms of social exchange relationships (LMX and TMX) in work settings. Second, it contributes to the leadership literature by improving our understanding of the underlying mechanism between leadership differentiation process and work group effectiveness using a TMX perspective (Graen & Uhl-Bien, 1995). This contribution may be particular relevant to Asian economies where guanxi dominates leader-member relationships. As leaders tend to offer favorable treatments to those subordinates with guanxi, LMX differentiation as well as its consequences may be a critical issue that has to be dealt with.

With respect to practical implications, as differential LMX inhibits group members' exchanges, leaders are advised to be careful when they distribute resources across subordinates so as to minimize the negative impact from differential leader treatments on coworker reciprocations. While task requirements may impact differential allocation of tangible resources (e.g. funds, equipment) based on the knowledge and skills of subordinates, distribution of non-tangible resources (e.g. respect, dignity) should be done without differentiation (Hooper & Martin, 2008). Moreover, leaders are advised to choose, if possible, employees who demonstrate low reciprocation wariness to be included into their work groups. To instill an environment where group members are encouraged to share information and feedback, leaders can strengthen their members' identification with the group with the help of appropriate team-building measures and activities.

The current study bears some limitations. First, as the model is tested with a sample from the Chinese context, and from a single organization and job type, the generalizability of the findings may be affected. Future studies may replicate this study with samples of other cultural backgrounds as well as other types of organizations and professions in order to examine the generalizability of the findings. In addition, the cross-sectional design of this study may limit the confidence in the causal relationships investigated. A longitudinal research design is recommended for future studies, testing whether the linkages among the variables are indeed as proposed in the hypothesized model.

It is hoped that this research can help in the theoretical development of TMX, encourage more studies of TMX in non-Western countries, and promote the development of cooperative work group environments in work settings.

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The Relationships Among Perceived Employer Branding, Employee Engagement, and Employee Expectation

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Abstract

The purpose of this study was to test the relationships among perceived employer branding, and employee engagement via the effect of employee expectation. A survey was completed by 1,349 employees working in Thai petroleum industry. The results indicated that there were strong positive relationships between employer branding and employee engagement, employer branding and employee expectation, and employee expectation and employee engagement. The results further indicated that there was a partial mediate effect of employee expectation on the relationship between employer branding and employee engagement. Therefore, this is the first study to investigate the simultaneous relationships among employer branding, employee engagement, and employee expectation by empirical study. Moreover, the relationship between employer branding and employee engagement was firstly explained towards employee expectation.

Keywords- Employer branding, Employee engagement, Employee expectation, Social exchange theory

1. Introduction

In recent years, many CEOs and managers believe that the talent pool has not significantly grown, and it has difficulty to get the right employees. Besides, Thai work aging population is expected to be slightly decreasing. Consistently, Thailand's economy is expected to be increasingly growing although it has the shortage of crude oil and labor, and also higher labor wages in comparison with ASEAN. This is a result of an establishment of AEC (ASEAN Economic Community) in 2015, which is likely to make an investment by the free movement of capital, materials, and labor. Therefore, the labor market is likely to have a fierce competition, especially for skilled and talented workers (Chalamwong & Amorntham, 2005).

Employees are the most valuable assets in any organization. The organization with strong employer branding differentiating from rivals could better attract prospective employees and retain existing employees, leading to a success of a sustainable competitive advantage through their employees. Many researchers strongly supported the advantages of being the best employers could reduce the costs of recruitment, staff turnover, and sickness-absence while improving employee engagement and commitment at the same time. Moreover, best employers are differentiated from competitors by a high level of employee engagement which links to high discretionary effort and leads to high revenues, profits, and overall returns on investment resulting in a sustainable competitive company (Backhaus & Tikoo, 2004).

Employee engagement has a significant impact on an organization's profitability such as positive relations on productivity, customer satisfaction and employee retention, and negative relation on employee voluntary turnover. The empirical study reported that engaged employees in Thailand is accounted for only 12 percent of total employee population, whereas not engaged and actively disengaged employees are accounted for 82 and 6 percent, respectively. Moreover, the study further estimated that actively disengaged employees who are the main reason of lower productivity make the Thai economy costs each year as much as $2.5 billion U.S. (Gallup, 2005).

Both academic researchers and practitioners are intensifying the level of interest in the employees' relation with employers. Therefore, this study proposes to investigate the simultaneous relationships among employer branding, and employee engagement which are explained by the expectancy and social exchange theory.

2. Literature Review

Employer Branding

Brands are crucial for both marketing and business strategies. In traditional marketing, consumers received three benefits from purchased the goods or services which were function, scarcity or market price, and psychological benefits (San Bernardino of Siena, c. 1420). On the other hand, in recent years brand management was popularly applied to human resource management called as employer branding (Berthon, et al., 2005). The theoretical foundation of employer branding is related to the assumption that employees are the most valuable assets in any organization, and employers who have expertise in human capital investment would benefit from higher performance, which consists of resource-based view, psychological contract, brand equity, person-organization fit, and social identity theory.

Ambler and Barrow (1996, p.187) were credited as the creators of the term "employer brand" which was defined as "the package of functional, economic, and psychological benefits provided by employment, and identified with the employing company". The authors used semi-structured depth interviews with top executives of 27 UK companies and later found the relevance between branding and employment. By comparing with conventional brand, the authors further explained functional benefit as employee development and job roles, economic benefit as material or financial rewards, and psychological benefit as feeling such as satisfaction and recognition.

Many authors proposed different views by describing employer branding as a strategy to build an image in the minds of the potential employees to be "a great place to work" or to become an employer of choice (Ewing et al., 2002). Meanwhile, some researchers argued that only a strategy of becoming an employee of choice is improbable to deliver the brand promise to customer (Barrow & Mosley, 2005).

Employee Engagement

Recently, employee engagement has become a hot topic and been widely used in business firms by practitioners whereas few academic and empirical researches were conducted by researchers (Robinson et al., 2004). The theoretical foundation of employee engagement is related to the assumption that an individual consciously selects particular courses of action based on an individual's perception, attitudes, and beliefs on desired consequences that increase pleasure and avoid pain (Vroom, 1964). Employees receive economic and socio-emotional outcomes from their company, and they feel obliged to well respond and repay (Cropanzano & Mitchell, 2005) whereas the company insufficiently supports these outcomes leading to the high level of disengaged employees, which comprise expectancy and social exchange theory.

The definition of employee engagement is inconsistent and separated into many different directions. Considering academic literature, there are four notions of employee engagement. Kahn (1990) was the first researcher who applied the concept of engagement to work. Personal engagement was defined as "the harnessing of organization members' selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances" whereas personal disengagement was defined as "the uncoupling of selves from work roles; in disengagement, people withdraw and defend themselves physically, cognitively or emotionally during role performances" (Kahn, 1990, p.694). The second notion, Maslach and Leiter (1997) defined burnout as an erosion of job engagement. Maslach et al. (2001) further explained that burnout was associated with the low levels of enjoyment and motivation whereas engagement was associated with the high levels of enjoyment and motivation. According to Maslach et al. (2001), there were six antecedents of burnout relating to work-life areas which comprised workload, control, reward, community, fairness, and values. Regarding the third notion, Harter et al. (2002) studied based on meta-analysis by using samples of 7,939 business units from 36 firms using Gallup Workplace Audit, and the researchers defined employee engagement as "an individual's involvement and satisfaction with as well as enthusiasm for work" (p. 269). In addition, engaged employees were categorized into three levels. First of all, engaged employees referred to employees who want to know their role's desired expectations and the organization's policies or situations that they are willing to apply their competence consistent with the organization's goals. Second, not-engaged employees referred to employees who concentrate to finish their tasks while disregarding the organization's outcomes and goals. Finally, actively disengaged employees referred to employees who are unhappy at work, busy acting out their unhappiness, consistently against everything, and undermine their colleagues accomplish (Gallup, 2005). The final notion, Saks (2006) was the first researcher separated engagement into job engagement and organizational engagement which explained through the social exchange theory. Moreover, Saks (2006) defined engagement as "a distinct and unique construct that consists of cognitive, emotional, and behavioral components associated with individual role performance" (p.602).

According to Christian and Slaughter (2007), they stated that no single approach overwhelms in both definition and methodology; it is therefore difficult to develop relevant research hypotheses, design surveys, and develop organization interventions. However, for this study employee engagement was defined as a distinct and unique construct that consists of cognitive, emotional, and behavioral components associated with individual role performance influencing an individual to apply additional effort to an individual's work.

Employee Expectation

Vroom (1964) suggested that individual consciously select particular courses of action based on individual's perception, attitudes, and beliefs on desired consequences that increase pleasure and avoid pain. The theory associates with three conditions are expectancy, instrumentality, and valence. Vroom (1964) further explained that given the opportunity a person will choose to work when the valence of outcomes that he expects to attain from working is more positive than the valence of outcomes that he expects to attain from not working. Moreover, Vroom and Deci (1992) stated that employees said they engage in behaviors because they expect those behaviors lead to their goals. The expectancy theory has been seriously tested and has received strong support that the expectancy theory provides a general framework for measuring, evaluating, and interpreting individual behavior (Fudge & Schlacter, 1999).

Employer Branding, Employee Engagement, and Employee Expectation

Best employer is differentiated the high-level of engaged employee, which results in higher retention, lower turnover, larger talent employees, and better financial performance (Backhaus & Tikoo, 2004). Drizin (2005) found that the most significant drivers of engagement are job satisfaction, reputation of management team and company, and effectiveness of senior leadership while Barrow and Mosley (2005) stated that the company is composed of great employee value propositions leading to strong employer brand and then a high level of employee engagement such as good senior leadership, above average economic benefit, advance career, good relationship with colleagues, forefront technology development, and enjoy life balance. Regarding the concepts mentioned above, the research hypothesis was thus developed.

H1: There is a positive relationship between employer branding and employee engagement for current employees.

Considering the second hypothesis, Harris and Fink (1987) conducted pre-interview and post-interview from job seekers and found that job seekers intend to accept a job with an organization when they perceived attractive job offer, compensation, and company image. Meanwhile, Turban and Greening (1996) revealed that the organizations which have higher perception of the organization's reputation are more attractive as employer than the organizations which have perception of the organization's reputation. Regarding the above concepts, the following hypothesis was therefore conducted.

H2: There is a positive relationship between employer branding and employee expectation for current employees.

The following research hypothesis, Austin (2011) revealed that when employees perceived supportive and caring supervisor and are proud in their organization, more opportunities growth would then increase employee engagement. In addition, the study by the IPSOS Mori (2006) suggested that the employees' perceptions of corporate values, community commitment, favorable pay, and feeling of friend and family member have significant impacts on employee engagement. Regarding the above concepts, the following hypotheses were therefore conducted.

H3: There is a positive relationship between employee expectation and employee engagement for current employees.

H4: There is a mediate effect of employee expectation on the relationship between employer branding and employee engagement for current employees.

3. Research Methodology

Samples and Procedure

The study of the Positioning Magazine (2007) revealed that PTT Public Co., Ltd. was the best company for both men and women. Moreover, Esso (Thailand) Public Co., Ltd. was ranked the 10th place for women. Therefore, the population for the study consisted of current employees working in nine organizations in Thai petroleum industry (Petroleum Institute of Thailand, 2013). The main study was collected by using three sampling methods, which were quota sampling, simple random sampling, and snowball sampling, and data collection was made from February to April, 2013. According to 2,746 questionnaires distributed, there were 1,349 questionnaires returned, the response rate was thus 49.13 percent. The majority of the respondents were male accounted for 56.1 percent with age between 30-35 years old accounted for 26.5 percent, and, marital status was single accounted for 55.7 percent. The level of education was mostly Bachelor's degree which was accounted for 54.4 percent while working experience was above 10 years accounted for 40.3 percent, and most of them were operation employees accounted for 70.0 percent, work in the engineering department accounted for 16.5 percent. In the next three years the respondents plan to work with current company which was accounted for 80.5 percent.

Instruments

The employer branding questionnaire was developed from the survey of Berthon et al. (2005) as well as Ngakhoopathipat et al. (2007). The final questionnaire was composed of 29 items based 5 dimensions including employment, development and application, organizational reputation, economic, and senior management measured on a 7-point Likert-scale. The Cronbach's alpha scales were 0.932, 0.909, 0.920, 0.861, and 0.836, respectively. The results indicated that all *p*-values associated with each loading were significant and above 0.6. Moreover, all average variance extracted (AVE) of five dimensions were above 0.5, and the discriminant validity (DV) scales were above 1.0. Due to the above results, it could be thus concluded that this instrument is reliable scale for the measurement of employer branding and is best represented by five unique dimensions.

The employee engagement questionnaire was developed from Saks (2006)'s employee engagement survey. The final questionnaire was composed of 9 items based on 2 dimensions including job engagement and organization engagement measured on a 5-point Likert-scale. The Cronbach's alpha scales were 0.825 and 0.917, respectively. The results indicated that all *p*-values associated with each loading were significant, and all of factor loading values were above 0.6. Moreover, AVE scales were above 0.5, and DV scales were above 1.0. Based on the above results, it could be thus concluded that this instrument is reliable scale for the measurement of employee engagement and is best represented by two unique dimensions.

The employee expectation questionnaire was developed from Harris and Fink (1987) and Rose (2006). The final questionnaire was composed of 14 items based 3 dimensions including functional expectation, economic expectation, and psychological expectation measured on 5-point Likert-scales. The Cronbach's alpha scales were 0.910, 0.870 and 0.864, respectively. The results indicated that all *p*-values associated with each loading were significant, and all of factor loading values were above 0.6. Moreover, AVE scales were above 0.5, and DV scales were above 1.0. Based on the above results, it could be thus concluded that this instrument is reliable scale for the measurement of employee expectation and is best represented by three unique dimensions.

In addition, the results from both 100 employees from the automobile industry and 100 employees from the banking industry showed that all *p*-values associated with each loading were significant which have similar results with the petroleum industry. Therefore, it could be concluded that all four instruments are supported the concurrent criterion validity.

4. Results

The model fit statistics

The model fit statistics of the competing model was $\chi2=5394.196$ at $p=0.000$, $\chi2/df=4.329$, CFI=0.924, IFI=0.924, AGFI=0.838, PGFI=0.772, RMSEA=0.050, NFI=0.904, and TLI=0.919. Meanwhile, the model fit statistics of the proposed theoretical model was $\chi2=5321.919$ at $p=0.000$, $\chi2/df=4.275$, CFI=0.925, IFI=0.925, AGFI=0.839, PGFI=0.772, RMSEA=0.043, NFI=0.905, and TLI=0.921. According to above results found that the model fit statistics of the proposed theoretical model was better than the competing model. Thus, it could be concluded that the relationships between employer branding and employee engagement greater explained by the mediate effect of employee expectation.

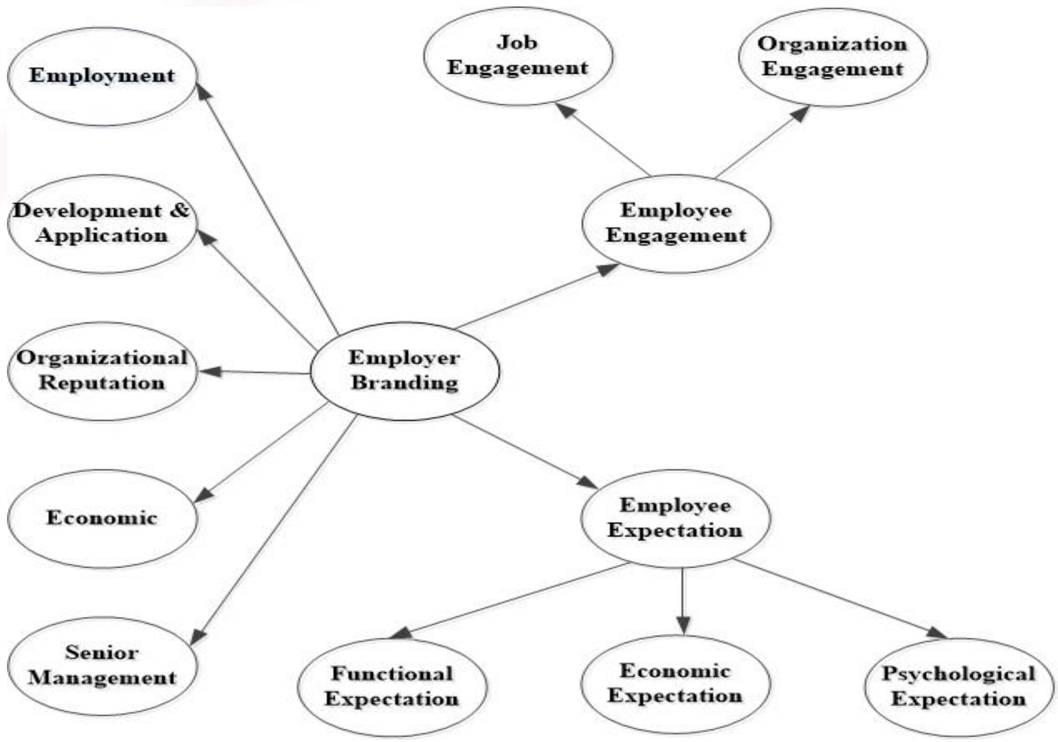

Figure1 The competing model

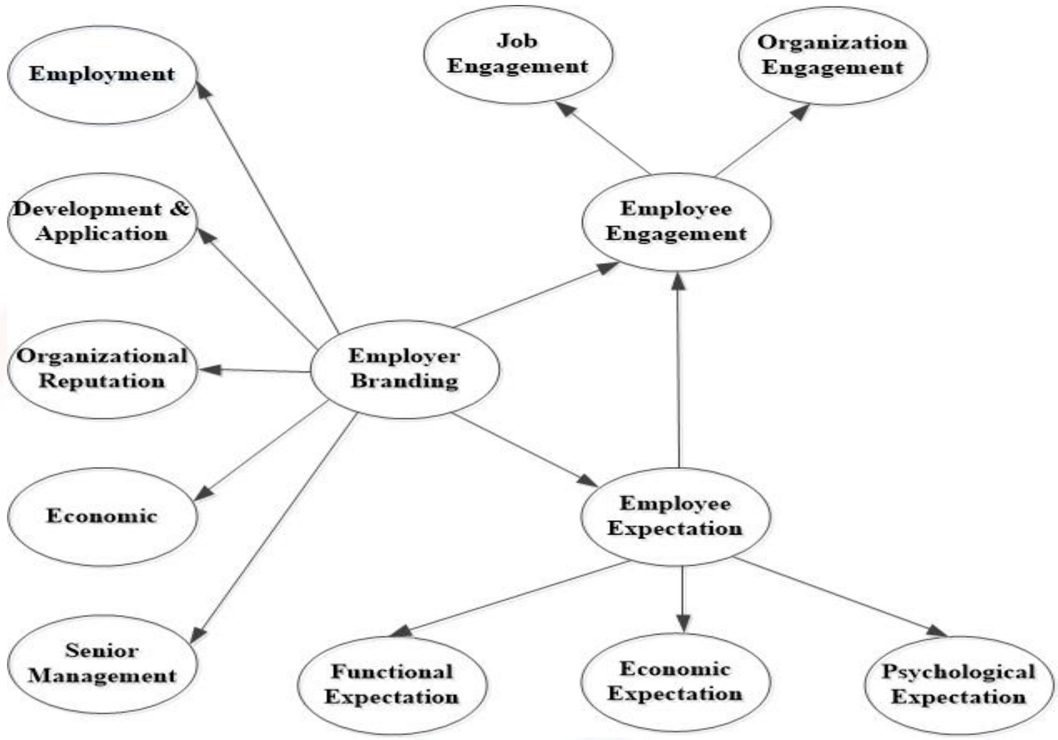

Figure2 The proposed theoretical model

Hypotheses testing

Hypothesis1

The value of *t*-test revealed that standardized estimated value was 0.398 whereas critical ratio was 8.225, and *p*-value was *** indicating that there is a significant positive relationship between employer branding and employee engagement at a significance level of 0.001. Therefore, it could be concluded that H1 was supported. The results showed that the standardized regression weights for employment, development and application, organizational reputation, economic, and senior management dimension were 0.915, 0.973, 0.882, 0.804, and 0.942, respectively. Consequently, it could be concluded that development and application is the most important dimension, followed by senior management, employment, organizational reputation, and economic respectively.

Hypothesis2

The value of *t*-test revealed that standardized estimated value was 0.792 while critical ratio was 18.108, and *p*-value was *** indicating that there is a significant positive relationship between employer branding and employee expectation at a significance level of 0.001. Thus, it could be concluded that H2 was supported.

Hypothesis3

The value of *t*-test revealed that standardized estimated was 0.426 while critical ratio was 8.001, and *p*-value was *** indicating that there is a significant positive relationship between employee expectation and employee engagement at a significance level of 0.001. Therefore, it could be concluded that H3 was supported.

Hypothesis4

Considering the competing model, the standardized direct effect between employer branding and employee engagement was 0.736. In contrast, the results from the proposed theoretical model showed that standardized direct effect between employer branding and employee engagement was 0.338 while standardized indirect effect was 0.418, and standardized total effect was 0.736. Thus, standardized direct effect of the proposed theoretical model was less than that of the competing model, and the model fit statistics of the proposed theoretical model was also better than the competing model. Consequently, it could be concluded that H4 was supported, and there is a partial mediate effect of employee expectation on the relationship between employer branding and employee engagement.

5. Discussions and Conclusions

The results revealed that all hypotheses were supported which H1, and H3 confirmed the results of the previous study. Considering H2, there is no research finding explored the relationship between employer branding and employee expectation in the context of current employees. Although, the previous study was interested in the context of prospective employees, the results were corresponding with the result of this study. Regarding the result of H4, the relationship between employer branding and employee engagement was firstly explained towards employee expectation.

Based on the expectancy theory, employees expected employer branding composed of the attractive working tasks, high value work experience, good career development, community, feeling of friend and family, well known company reputation, corporate values, above average compensation, supportive supervisor, and caring supervisor. Besides, these employees compared their expected employer branding to perceived employer branding when the outcomes are more positive leading to high performance and engagement. On the other hand, when employees found that their outcomes are less than expectation, they would feel depressed and decide not to work. Consistent with the result of this study, it was found that when employees judged their perceived employer branding is above than their expectation, they would thus intend to well respond and repay to their company by increasing their performance and engagement especially for Thai culture which is normally sympathetic and considerate culture. Consequently, the results indicated that the strong correlation.

According to the social exchange theory, employees judged their outcomes based on what they received from the company. If the above average outcomes are made comparing to the other company, then they would feel obliged to well respond and repay by delivering the greater levels of engagement. Employers would provide the attractiveness of the rewards or outcomes differently depending on the employee's needs and values to increase the level of engagement and extra effort, which in turn enhance an organizational success.

6. Implications for Future Research

The findings provided several implications for researchers who are not only in a field of human resource development but also interested in the organization-related studies. The first area suggested for future research would be to investigate other potential antecedents and consequences of employer branding. Regarding the person-organization fit, it tends to be more attractive when employees perceived that the employer brand image is appropriate to their personalities, needs, and values (Schneider, 1987). Thus, demographic factors such as age, working experience, position, personality variables, organization identities as well as social identities and culture variables might influence the development of employer branding. Considering consequences, future research would be to examine other potential consequences of employer branding such as an individual's performance, financial performance, turnover, intention to leave, customer satisfaction, and customer loyalty.

Due to the second area of the suggested future research, the study applied the notion of Saks's (2006) employee engagement. Nevertheless, there are other three notions which might provide also better understanding about engagement in the complex organizational phenomena related to the employees' behavior and performance.

Regarding the fact that an individual possessed different characteristics and personalities that might predict employee engagement, the future research might consider individual differences as the antecedents of employee engagement. For example, there are workaholic behavior, the need for achievement, hardiness, self-esteem, self-efficacy, and locus of control. Considering the social exchange theory, employees with a strong exchange tradition are more likely to feel obliged to well respond when they receive well support. Thus, the relationship between various antecedents and engagement tend to be stronger for employees with a strong exchange tradition. As a result, the future research would be to test the moderate effects of exchange tradition on the relationship between antecedents and engagement.

According to many previous studies, this study confirmed that employer branding is an antecedent which has a high influence on employee engagement. However, some studies provided the different views. For example, Robinson et al. (2004) proposed that the relationship between employer and employee is reciprocal; therefore, the researchers proposed that the relationship of employer branding and employee engagement is a two-way relationship. Consequently, the future research would be to test and confirm that employer branding is an antecedent of employee engagement. Besides, the future research pursues the questions on "Is there an influence of employee engagement on employer branding?" and "Is there a two-way relationship between employer branding and employee engagement?" which incur to explore the new conceptual framework.

Finally, the study used the quantitative method by conducting a survey which could explain concrete information. Nonetheless, the future research should apply qualitative method to understand more insight information so that the company could provide good benefits suitable for their employees and the organization context.

7. Implications for Practice

The findings provide numerous implications for the organization, especially those who are working in human resource department and management. First of all, employer branding was a significant predictor of employee engagement; thus, organizations wishing to improve the levels of employee engagement should focus on developing a strong employer branding. Recently, the most popular way was the employee value propositions (EVPs). The result showed that development and application is the most important dimension, followed by senior management, employment, organizational reputation, and economic, respectively. Thus, the organizations should emphasize more on emotional than economic drivers. Besides, the organizations should implement three steps to sustain employer brand image. First, the organizations may create a concept of EVPs offered to both future and existing employees. The second step is to develop EVPs attractive to the external markets such as the targeted potential employees, recruiting agencies and placement counselors. The last step is to deliver the brand promise offered to recruit onto the firm and embedded as a part of the organizational culture (Frook, 2001).

Considering the second implication for practice, the organizations wishing to improve employee engagement should focus on the expectations of employees regarding the received offerings. Organizational programs that disclose employees' expectation such as surveys, focus groups, and 360-degree feedback might cause employers to get the insights of their employees leading to the higher levels of job and organization engagement.

Furthermore, the organizations should understand that employee engagement is a long-term and continuous process requiring continued interactions over time to create the obligations and a state of mutual interdependence.

Last, but not least, the result revealed that all items of the instruments have concurrent validity which means these instruments could be applied to the context of current employees work in the other industry.

8. Limitations

Some noteworthy limitations of the study are addressed. The first limitation included the effect of extraneous variables which may affect employer branding, employee engagement, and employee expectation such as macroeconomics, and economic crisis. Second, the data collection of the study involved a snowballing approach rather than a random sampling method. As a result, some cautions are required in generalizing the results to the larger population. Moreover, since the study used cross-sectional and self-report data the conclusions could not only make causal inferences but also raise some concerns about common bias. Therefore, a longitudinal study is required to provide more definitive conclusions. The final limitation was the findings explaining behaviors and emotions of Thai employees which may not be corresponding with foreigner employees.

9. Summary

The major purpose was to investigate the relationships among perceived employer branding, employee engagement, and employee expectation. The data were collected from 1,349 current employees working in Thai petroleum industry. The results indicated strong positive relationships between employer branding and employee engagement, employer branding and employee expectation, and employee expectation and employee engagement which supported the previous studies.

Regarding the contribution in academic approach, the result indicated the partial mediate effect of employee expectation on the relationship between employer branding and employee engagement. Thus, this was the first time that the relationship between employer branding and employee engagement was explained towards employee expectation by academic approach. On the other hand, the contribution to practitioners was that the survey was confirmed the concurrent validity where all items of the instruments could be applied to measure current employees' attitude work with other industry.

Even though, employer branding is one of the most interested strategies in business firms and practitioners, an academic study is scarce which similar to employee engagement. According to the lack of current data of employer branding, and employee engagement, it is likely to be a challenge for the future research to explore both independent and dependent variables which leads to better understanding of the concepts and applications. In addition, the future research should further continue to explore the possible variables into the model which could be moderators and/or mediators which could lead to a better understanding about the complex organizational phenomena related to employees' behavior and performance. Finally, the study and the other additional future researches may continue to explore how human resource management could enhance the well-being and productive behaviors of employees who are the most valuable asset of the organization, which lead to an organizational success as a result.

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Understanding the Attitudes of Tourists towards Creative Tourism

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Abstract

The purpose of this study is to understand more about the attitudes of tourists toward the creative tourism. In this study, the author explored the tourism patterns, tourism activities and sources of information in order to understand the important of these factors towards their decision making for visiting the tourism sites in the future. Quantitative method was used to analyze and test the relationship among variables. The results and discussions of findings were provided. In addition, the author proposed the directions for future research in the concept of creative tourism literature.
Keywords: Creative Tourism; Tourism Activities; Thailand

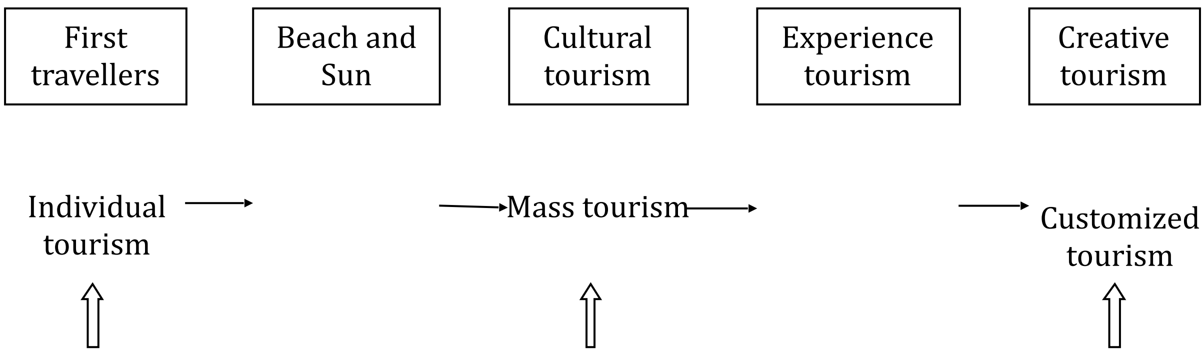
Introduction

Tourism industry contributed around 10% of Thai economy and there are growing numbers of tourists from many continents (e.g. China, Russia and Japan) visiting Thailand. As the country has various types of tourism products to offer, namely heritage tourism, adventure tourism, ecotourism, community-based tourism and agrotourism. Creative tourism is a new trend for tourism in Thailand. As a part of cultural and heritage tourism, Thai tourists become increasingly interested in the creative tourism activities. Many destinations around the country provide cultural based activities for the group of domestic tourists. However, little research studies have been conducted to explain the reasons why the tourists are interested in creative tourism and to investigate the main activities that the tourists would participate in the destinations.

Literature Review

According to the evolution of tourism production, creative tourism is a custom tourism, which tourism activities based on tangible and intangible resources (Figure 1). In other words, the current travel patterns have changed with the additional of special activities that integrate the symbolic concepts, values, knowledge, and participation of tourists (Fernandez, 2010).

Figure 1: Evolution of the tourism production system



Source: (Fernandez, 2010)

Creative tourism

According to Richards and Raymond (2000), creative tourism, which is an extension of cultural tourism, allows a tourist to have an opportunity for creative personal development through participating in and through direct learning experience with the local people in the tourism destination. Creative tourism is considered a tool for conservation and for the harmony of community to preserve local culture when tourists and the local people participate in may tourism-related activities such as brainstorming about cultural and heritage tourism, practicing tourism activities and developing the community. Therefore, tourist attractions are sources of learning, sharing the experiences, and become a powerful knowledge base for sustainable development (Sustainable Tourism Administration (Public Organization), 2011).

In tourism business model, factors affecting creative tourism are separated in demand and supply factors. Demand factors consisted of participation in culture, creativity, innovation, cultural heritage preservation, authenticity, human interaction, cultural immersion, and cultural travel and tourism. Meanwhile, supply factors are consisted of creative industries, global cultural diversity, unique local cultural offerings, unique local arts and crafts, hospitality facilities, local tourism infrastructure, cultural tourism resources, and other types of tourism (Ohridska-Olson and Ivanov, 2010). The tourists in the category of tourism are known as creative tourists, which can be defined as the tourists, directly engaging and having interactive experiences in tourism activities, supporting one's personal development and self-identity (Salman and Uygur, 2010).

Creative Tourism activities, Tourism Benefits and Attitudes towards Tourism Environment

In order to understand about creative tourists, the current study emphasized on creative tourism activities, perceptions of tourism benefit from tourists' experience and their attitudes towards creative tourism environments. Several scholars indicated creative tourism activities or tourism experience such as Tan et al. (2013), Maisel (2009) and Raymond (2009). A number of researchers have further provided their insights about tourism benefits and attitudes of tourists towards tourism environment (Sekhar, (2003); Salman and Uygur (2010); Durmaz et al.(2010).

Research Methods

The author used the self-administered survey questionnaires for data collection. 400 usable questionnaires were collected from domestic tourists in Bangkok and vicinities. To analyze data, the author used descriptive statistics, T-test and ANOVA to show the results and for further discussions. In selecting the respondents, the author used the screening questions to check whether the respondents had experience participated in creative tourism activities and met the criteria of creative tourists before data collection.

The Results of Study

Tourists' demographics

As shown in Table 1, 52.5% of the respondents were female and the rest (47.5%) were male. More than half of respondents (62%) were 20-29 years old, while 24.5% were under 20 years old, and the rest were 50-59 years old (0.8%) and up to 60 years old (0.5%). The majority of respondents (71.5%) were single, 28.3% were married and the rest (0.2%) were widowed/divorced/separated/others. The majority of respondents (83.8%) had bachelor's degree, while 12% were under bachelor degree. 33.2% of respondents were farmer, 31.8% were employee of private company, 12.0% were government/state enterprise officer/government pensioners, 11.7% were merchants, 5.5% were students, and the rest (5.8%) had other occupations. 54.3% had income between 10,001-20,000 baht, 24.5% had income below 10,000 baht, and 17.8% had income between 20,001-30,000 baht.

Table 1 Tourists' demographics

Variable	Number	Percentage
Gender		
Male	190	47.5
Female	210	52.5
Age		
Under 20 years	29	7.2
20-29 years	248	62.0
30-39 years	98	24.5
40-49 years	20	5.0
50-59 years	3	0.8
Up to 60 years	2	0.5
Marital status		
Single	286	71.5
Married	113	28.3
Widowed /Divorced /Separated/Others	1	0.2
Education level		
Under bachelor degree	48	12.0
Bachelor degree or similar	335	83.8
Higher than bachelor degree	17	4.2
Occupation		
Government/State enterprise officer/ Government pensioners	48	12.0
Employee of private company	127	31.8
Merchants	47	11.7
Farmer	133	33.2
Student	22	5.5
Others	23	5.8
Income level		
Below 10,000 baht	98	24.5
10,001-20,000 baht	217	54.3
20,001-30,000 baht	71	17.8
30,001- 40,000 baht	8	2.0

40,001-50,000 baht	3	0.7
Up to 50,001 baht	3	0.7
Total	**400**	**100.0**

Table 2 Tourism activities

Tourism activities	Number	Percentage
Visit and learn about important architectures in community	236	59.0
Participate in natural conservation activities	103	25.8
Participate in photo shooting activities	95	23.8
Participate in sport activities	63	15.8
Participate in annual tradition, annual festival, and activities related to religion	59	14.8
Participate in activities related to occupations of local people	54	13.5
Visit and learn about important sites	29	7.3
Participate in local food cooking activities	17	4.3
Participate in adventure activities	13	3.3
Participate in cultural activities	11	2.8
Participate in drawing activities	5	1.3
Others	4	1.0

From table 2, the majority of respondents (59.0%) selected their tourism destination in order to visit and learn about important architectures in community, 25.8% participating in natural conservation activities, 23.8% participating in photo shooting activities, 15.8% participating in sport activities, 14.8% participating in annual tradition, annual festival, and activities related to religion, 13.5% participating in activities related to occupations of local people, 7.3% visiting and learning about important sites, 4.3% participating in local food cooking activities, 3.3% participating in adventure activities, 2.8% participating in cultural activities, 1.3% participating in drawing activities, and the rest (1.0%) in other activities.

Table 3 The difference between age and tourism activities

Items	**F**	***p*-value**
Participate in local food cooking activities	4.538	0.000*
Participate in cultural activities	6.658	0.000*

*Significant level at 0.05

From table 3, the analysis of the difference between age and tourism activities, the study found that the respondents with the age below 20 years selected the local food cooking activities more than the respondents with the age between 20-39 years. Furthermore, the respondents with the age below 20 years selected the cultural activities more than the respondents with the age between 20-49 years.

Table 4 The difference between age and tourism benefits

Travelling benefits	**F**	**p-value**
Learn about the life style of local people	2.728	0.019*
Analyze the values and life style of local people	2.683	0.021*
Share the knowledge and skills to local people	2.694	0.021
Generate the harmony from tourism activities participation	3.014	0.011*
Share the experiences after travelling to other people	4.528	0.001*

* Significant level at 0.05

From table 4, the respondents with the age between 40-49 years learned about the life style of local people more than the respondents with the age below 20 years. The respondents with the age between 40-49 years were more concerned about the values and life style of local people than the respondents with the age below 20 years. The respondents with the age between 40-49 years were considered about sharing knowledge and skills to local people more than the respondents with the age below 20 years. The respondents with the age between 40-49 years shared their experiences after travelling to other people more than the respondents with the age below 20 years old to 39 years old.

Table 5 The difference between age and attitudes towards tourism environment

Environment of tourist attractions	F	p-value
Should to provide site map of tourist attractions	2.642	0.023*
Should to provide media/tools to enhance the understanding of tourist attractions	5.479	0.000*
Should to improve the cleanliness of tourist attractions	4.166	0.001*
Should to improve the maintenance and decoration of tourist attractions	4.748	0.000*

* The significant level at 0.05

From table 5, the respondents with the age between 40-49 years suggested about providing site map of tourist attractions more than the respondents with the age between 30-39 years and the age below 20 years. Moreover, the respondents with the age between 40-49 years agreed that tourism and destination managers should provide media or tools to enhance the understanding of tourist attractions more than the respondents with the age below 40 years old.

The respondents with the age between 40-49 years suggested that the destination should improve the cleanliness of tourist attractions more than the respondents with the age below 20 up to 39 years. The respondents with the age between 40-49 years showed that they are more likely to maintain and decorate the tourist attractions than the younger age groups.

Table 6 The difference between occupation and travelling benefits

Tourism benefits	F	*p*-value
Learn about the uniqueness of community	5.235	0.000*
Analyze the values and life style of local people	4.790	0.000*

Share the knowledge about history to other people	4.707	0.000*
Share the knowledge about history of tourist attractions to other people	6.644	0.000*

* Significant level at 0.05

From table 6, the respondents who had other occupations preferred to learn about the uniqueness of community to the respondents who are merchants, employees of private company, government/state enterprise officers, and students. The respondents who had other occupations can analyze the values and life style of local people more than the respondents who are merchants, employees of private company, government/state enterprise officer, and government pensioners.

The study showed the respondents who are government pensioners shared the knowledge about history to other people more than the respondents who are merchants, employees of private company, and government/state enterprise officers. In addition, the respondents who are government pensioners shared the knowledge about history of tourist attractions to other people more than the respondents who are students, employees of private company, merchants, and government/state enterprise officers, respectively.

Table 7 The difference between income level and tourism benefits

Item	F	*p*-value
Learn about the life style of local people	8.905	0.000*
Learn about the uniqueness of community	10.757	0.000*
Analyze the resources usage of local people	10.310	0.000*
Analyze the values and life style of local people	9.447	0.000*
Exchange the experiences and ideas	7.533	0.000*
Share the knowledge and skills to local people	4.652	0.000*
Generate the idea of environmental conservation	3.699	0.003*
Generate the idea of cultural preservation	6.176	0.000*
Help other people	4.191	0.001*
Generate the understanding about culture of community	6.341	0.000*
Generate the harmony from tourism activities participation	2.732	0.019*
Share the experiences after travelling to other people	3.370	0.005*
Share the knowledge about history of tourist attractions to other people	3.404	0.005*

* Significant level at 0.05

From table 7, the respondents who had income between 10,001-20,000 baht learned more about the life style of local people than the respondents who had income below 10,000 baht. In addition, the respondents who had income level between 10,001-20,000 baht learned about the uniqueness of community more than the respondents who had income between 20,001-30,000 baht. The respondents who had income between 10,001-20,000 baht concerned about the resources usage of local people more than the respondents who had income between 20,001-30,000 baht.

The respondents who had income between 10,001-20,000 baht concerned about the values and life style of local people more than the respondents who had income between 20,001-30,000 baht. The respondents who had income level between 20,001-30,000 baht exchanged the experiences and ideas more than the respondents who had income below 20,000 baht. The respondents who had income between 30,001-40,000 baht shared knowledge and skills to local people more than the respondents who had income below 30,000 baht. The respondents who had income between 20,001-30,000 baht more generated the idea of environmental conservation than the respondents who had income under 20,000 baht. The respondents who had income between 10,001-20,000 baht generated the idea of cultural preservation more than the respondents who had income between 20,001-30,000 baht.

The respondents who had income between 20,001-30,000 baht helped other people more than the respondents who had income below 10,000 baht. The respondents who had income between 20,001-30,000 baht generated more understanding about the culture of community than the respondents who had income below 20,000 baht. Besides the respondents who had income level between 20,001-30,000 baht concerned about generating the harmony from participating in tourism activities more than the respondents who had income between 10,001-20,000 baht. The respondents who had income below 10,000 baht shared the experiences from travelling to other people more than the respondents who had income between 10,001-30,000 baht. The respondents who had income below 10,000 baht shared the knowledge about historical site more than the respondents who had income between 30,001-40,000 baht.

Table 8 The difference between income level and attitude towards tourism environment

Item	**F**	***p*-value**
Should to provide clear direction signage	3.265	0.007*
Should to provide site map of tourist attractions	4.169	0.001*
Should to provide media/tools to enhance the understanding of tourist attractions	5.465	0.000*
Should to improve the cleanliness of tourist attractions	3.347	0.006*
Should to improve the maintenance and decoration of tourist attractions	4.607	0.000*

* Significant level at 0.05

From table 8, the respondents who had income between 10,001-20,000 baht recommended providing clear direction signage more than the respondents who had income below 10,000 baht. The respondents who had income between 20,001-30,000 baht suggested providing site map of tourist attractions more than the respondents who had income below 20,000 baht.

The respondents who had income between 10,001-20,000 baht suggested providing media/tools to enhance the understanding of tourist attractions more than the respondents who had income below 20,000 baht. The respondents who had income between 20,001-30,000 baht suggested improving the cleanliness of tourist attractions more than the respondents who had income below 10,000 baht. The respondents who had income between 20,001-30,000 baht concerned more for improving the maintenance and decoration of tourist attractions than the respondents who had income below 20,000 baht.

Discussions

Characteristics of Creative Tourism

Tourism of Thailand has emphasized on eco-tourism and cultural tourism, which are foundation of creative tourism in the future (Sustainable Tourism Administration (Public Organization),2011). The results of study also harmonized with Richards and Raymond (2000), which defined creative tourism as the tourism involved with historical and cultural tourism. The study showed that majority of respondents preferred to visit and learn about important architectures in community, followed by participating in environmental conservation activities, as well as participating in activities related to culture and religion. Additionally, the study also showed tourist attractions, having the characteristics of historical uniqueness, beautiful architectures and attractiveness, and cultural uniqueness, are the most important factors affecting travelling behaviors of respondents respectively.

This study found differences between occupation and main purpose of travelling in that the respondents who are students having main purpose to participate in annual festival or local festival, while the employees of private companies aimed to seek for new experiences. Furthermore, the study showed the difference between income level and main purpose of travelling by the respondents who have income below 10,000 baht having main purpose to participate in annual festival or local festival. The respondents who have income between 10,001-30,000 baht aimed to seek for new experiences and the respondents who have income between 30,001-40,000 baht having the main purpose to relax. These results are consistent with the study of Ohridska-Olson and Ivanov (2010) that showed the demand of travelling comprised of the need to participate in local culture, creative activities, as well as innovative activities.

Furthermore, the study found that female respondents have attitude to think and say only good things that they received from travelling experiences more than male respondents which is supported by the study of Ryan, Henley, and Soutar (1998). They found that female tourists were concerned about interpreting information from travelling more than male tourists.

Tourism Benefits

The study found that sharing historical knowledge of tourist attractions to other people is the most important benefit from travelling in creative tourism, followed by sharing historical knowledge to others and sharing the experiences after travelling to other people respectively. This result goes along with the attitude of respondents towards tourist attractions in that the majority of respondents recommend other people to travel to this site as well as thinking and saying only good things about the sites.

The results also correspond to the definition of creative tourism by United Nations Educational, Scientific and Cultural Organization (UNESCO). They defined creative tourism as tourism that a tourist learns from real experiences and engagement (UNESCO, 2006), conforming to Campbell (2010). They stated that in creative tourism, the tourists are eager to learn about the culture of community from real experiences.

In addition, the study found the respondents who have income between 10,001-20,000 baht generated the idea about cultural preservation from creative tourism more than others. Furthermore, the respondents with income level between 20,001-30,000 baht generated the idea about environmental conservation more than lower income groups, supporting the study of Jensen (2011) who found the respondents with high income and education level emphasized on the natural resources more than other groups of respondents.

The study also found that the respondents with different demographic structures were affected by the benefits gained from creative tourism in different areas. This is supported by Zhou (2010) who found gender and personality are important to how the tourists perceive benefits from travelling, as well as the study of Heung, Qu, and Chu (2001) which indicated that gender and sources of travelling information affect perceived benefits gaining from travelling.

Attitudes towards Tourism Environment

According to previous results can conclude that the respondents give singificance to the convenience of transportation, safety and cleanliness of accommodations and attractions, as well as the readiness of tourist attractions in term of signage, map, and number of toilet. The result is supported by the work of Ohridska-Olson and Ivanov (2010), in that the supply of creative tourism showed differences in culture, including basic infrastructures of tourist attractions.

The previous results imply that the respondents who have income between 10,001-20,000 baht and between 20,001-30,000 baht concerned more about the cleanliness, safety, and readiness of basic infrastructures of tourist attractions, which are important factors to develop and drive the creative tourism in the future. If all of these factors are developed and improved in appropriate ways and consistence with the needs of respondents, it may enhance the level of satisfaction towards tourist attractions, which can be the indicator of an increasing tourists' number in the future. In addition, the tourists may help increase the number of tourists by recommending other people to travel to those attractions (Valle et al., 2006).

Conclusions and Recommendations

Creative tourism is a classification of tourism focusing on real experiences and the engagement in tourism destination and tourism activities. Creative tourism generates long-term benefits to the tourists and tourism destination including the local community, leading to cultural preservation and appreciation as well as sustainable tourism development. Nowadays, creative tourism is promoted and expanded to several parts of the world and Thailand has already started to develop creative tourism in several geographical areas. This study was conducted in order to study the characteristics, benefits, and attitudes towards tourism environment, especially in the aspect of further improvement of the tourism environment.

About the benefits of creative tourism, this study found that the respondents perceive the benefit of sharing knowledge about history of touist attractions to other people. The results also showed that the age factor affects learning and absorbing the values and lifestyle of local people. Moreover, the study found the difference in occupation and income level of respondents to affect learning, understanding, and sharing knowledge about the lifestyle, uniqueness, and values of local people at different level.

For practical implications, this study also benefits tourism-marketing practitioners in order to manage the marketing campaigns in tourist attractions. The tourism marketing in tourism destinations can support management of tourism activities related to historical and cultural sites such as experiencing the lifestyle of local community and participating in local traditions. For tourist destinations focusing on natural resources, the communities can arrange tourism activities such as visiting the beautiful of natural resources with activities that give opportunities for tourists to learn how to conserve and protect natural resources at the same time. Furthermore, the tourism-marketing practitioners can arrange tourism activities corresponding to each age of tourists and appropriate to each occupation and income level of tourists.

Additionally, about directions for further research, the current study emphasized the characteristics of creative tourists, creative tourism activities, tourism benefits and attitude towards tourism environment. The relationship among these factors should be further investigated to enhance the understanding of creative tourism concepts. Moreover, qualitative study, such as in-depth interview with creative tourists, may help leading to better insights about tourist expectation and satisfaction. Researchers may explore additional concepts in the context of creative tourism, such as tourist satisfaction and destination loyalty (Valle et al. ,2006 and Som and Badarneh, 2011).

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Testing for Long Memory and Multiple Structural Breaks in the Return of Travel and Tourism Indexes

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Abstract

This paper identifies long memory process and multiple structural breaks among the travel and tourisms indexes at the New Zealand Exchange (NZSE), Down Jones Indexes (DJI), and Financial Times Stock Exchange (FTSE) at London Stock Exchange. Autoregressive fractionally integrated moving average and fractionally integrated generalized autoregressive conditional heteroskedasticity (ARFIMA-FIGARCH) model and structural break have been applied in this paper to examine the long memory process. This research found that almost all variable has intermediate memory except for Dow Jones U.S Travel & Tourisms with long memory. More than 90% tourism and travel indexes have structural break and have interconnection among indexes from New Zealand, America and Europe. Another finding shows that New Zealand and Europe have strong asymmetrical effects.

Keywords: Tourisms and Travel Index, Long Memory, Structural Break

I. Introduction

According to the most recent UNWTO World Tourism Barometer, positively forecast, for the period May-August 2012 The Northern Hemisphere's summer peak season is with around 415 million tourists predictable to travel abroad. The Americans (+6%) recorded growth slightly above the world average, with solid outcome across almost all destinations. Europe (+4%) consolidated its record growth of 2011, despite the lifelong economic instability in the Euro zone. This paper motivates to research about tourism and travel indexes distinguishing the relation between tourism an economic and social phenomenon. Over the decades, tourism has experienced sustained growth and deepening diversified to become one of the fastest growing economic sectors in the world. Recent tourism is closely connected to the growth and encompasses a rising quantity of new destination. These conditions create tourism into a key driver for socioeconomic development, and presently the business volume of tourism equals or even surpass that of oil exports, food products or automobiles.

Time series data running from the long memory process was appearing in my context, like macroeconomics and financial economics. Hurst (1951) pioneered his work on long memory in water levels in the Nile River. Aydogan and Booth (1988) Greene and Fielitz (1977) and experienced long memory by the rescaled variety statistic of Hurst (1951). They found evidence of the long memory of U.S. Stock return. Wright (1998) studied about the detection evidences of long memory in stock returns in emerging markets like Greece, Chile, Philippines, Korea and Colombia. Olan (2002) provided evidence that long memory could be found in the South Korean, German, Japan's and Taiwan Stock Market. Otherwise Lo (1991), using R/S statistic and no evidence of long memory in a sample of US stock returns. For these reasons this study applies of long memory effects to examine in travel and tourism indexes in New Zealand, America and Europe market. Furthermore, this study desires to confirm presence of structural changes in the travel and tourism indexes. Charfeddine and Guégan (2011) used the Markov Switching model and the Structural Change model and found that breaks date coincides with some economic and financial events, such as the Vietnam War and the two oil price shocks. Granger and Joyeux (1980) use the ARFIMA model provided a support for changes in average, and break dates which coincided precisely with economic and financial events example like the Vietnam War and oil price shocks. They also confirmed the existence of breaks can provoke spurious long memory behavior.

The purpose of this paper is to provide some unique empirical evidences of long memory and structural break in return of travel and tourism indexes, and we found more evidences to see the asymmetric effects for these indexes. Using ARFIMA and ARFIMA FIGARCH for testing long memory and using the iterated cumulative sums squares test (ICSS) for testing multiple structural break, we find that U.S travel and tourism index have long memory effect except New Zealand and Europe indexes with intermediate long memory. Interestingly, structural break test showed that all travel and tourism indexes have structural changes.

The article organized as follows: section II presents the data and methodology; section III presents empirical results of long memory and structural break; finally section IV provides the conclusion.

II. Data and Methodology

This study used daily closing prices on travel and tourisms indexes, obtained from the Yahoo Finance website. There are only 8 indexes from the tourism and travel indexes. We acquire the two index trading in the New Zealand Stock Exchange (NZSE), four indexes from Dow Jones Industrial (DJI), and two indexes from Financial Time Stock Exchange (FTSE) at London Stock Exchange. The study period begins with varying indexes inception dates until 13 July, 2012.

The methodology designed for long memory using ARFIMA and FIGARCH model. The iterated cumulative sums squares test (ICCS) method was applied for structural break analysis.

(1) Autoregressive Fractionally Integrated Moving Average (ARFIMA)
Box and Jenkins (1970) proposed [ARMA (p, q)] to illustrate the stationary time series, where p is the autoregressive item and q is the moving average item. The ARMA model's mean, auto-covariance and variance are constant, and they will not affect by the time. Nevertheless, most of the financial time series are non-stationary, means that the time series have non-stationary mean and auto-covariance. The [ARIMA (p, d, q)] proposed by Box and Jenkins (1970) that used parameter d to differentiate the time series variables to let the variables turning to stationary. To observe the time series data having the long memory effect or not, Engle and Granger (1987) indicated that imperfect the parameter d in zero or one may lead the equilibrium error causing less the ability to determine the long-memory effect. Granger and Joyeux (1980) proposed [ARFIMA (p, d, q)], which allows the parameter d to be the non-integer or fraction. If there is $0<d<0.5$, it will represent the time series with long memory effect. The mathematical model is defined as below:

$$\Phi(L)(1-L)^d(y_t-\mu_t)=\Psi(L)\varepsilon_t \ , \qquad (1)$$

Where do represent the fractional integration real number parameter, L is the lag operator, and ε_t is a noise residual.

$\Phi(L)=1-\Phi_1 L-\cdots-\Phi_p L^p=1-\sum_{j=1}^{p}\Phi_j L^j$ are the polynomials in the lag operator of order p, $\Psi(\mathrm{L})=1+\sum_{\mathrm{j=1}}^{\mathrm{p}}\Psi_{\mathrm{j}}\mathrm{L}^{\mathrm{j}}$ are the polynomials in the lag operator of order q where both p and q are integer. ε_t is a white noise residual, and μ_t is $\mathrm{y_t}$'s mean.

The fractional differencing lag operator $(1-L)^d$can be further illustrated by using the expanded equation below:

$$(1-L)^d=1-dL+\frac{d(d-1)}{2!}L^2-\frac{d(d-1)(d-2)}{3!}L^3+.. \qquad (2)$$

The ARFIMA model uses the parameter d to capture the long memory of the time series variable. Based on Paul et al. (2009), when d = 0, then variable has short memory and the effect of shocks to $\mathrm{\varepsilon_t}$ decays faster (geometric decay). When *-0.5 < d <0.5*, the variable is stationary, wherein the effect of market shocks to $\mathrm{\varepsilon_t}$ decays at a gradual rate to zero (hyperbolic decay). When *d = 1*, there is the presence of a unit root process.

Furthermore, Hsieh and Lin (2004) showed that there is an intermediate memory when -0.5<d<0, representing that the autocorrelation function decays slower. There is a short memory when d=0, the Autocorrelation function decays faster. If there is 0<d<0.5, it represents the time series with long memory effect. The time series variable is non-stationary when $d\geq 0.5$, at the same time as the time series variable is stationary when $d\leq 0.5$.

In common, the empirical results demonstrate that the ARFIMA model has enhanced performance in predicting volatility. Cheng (2006) and Sivakumar and Mohandas (2009) indicate that ARFIMA model's predictive power was moderately better compared to ARMA and ARIMA.

(2) Fractionally Integrated Generalized Autoregressive Conditional Heteroskedasticity (FIGARCH)

Engle (1982) proposed ARCH model to illustrate the variance of the residuals changes over time and a phenomenon with volatility clustering. Bollerslev (1986) proposed the Generalize Autoregressive Conditional Heteroscedasticity (GARCH) model and set conditional variance not only manipulate by the square of prior residual, but also the prior variance. In modeling conditional variance, GARCH is more flexible than ARCH.

Baillie et al. (1996) proposed FIGARCH model to capture the long memory in volatility return. The volatility decays at a gradual rate to zero (hyperbolic decay). If the variables have a long memory, it indicates that random external shock of every period would have a longer time to react for this variable. For random external shock, stationary variables decay faster (geometric decay).

The model is more elastic in modeling the conditional variance, capturing both the covariance stationary GARCH for $\bar{d}=0$, and the non-stationary IGARCH for $\bar{d}=1$. The FIGARCH model can be illustrated as:

$$\phi(L)(1-L)^d\varepsilon_t^2 = \omega + [1+\beta(L)]\upsilon_t, \tag{3}$$

where

$$(1-L)^d = \sum_{k=0}^{\infty}\frac{\Gamma(d+1)L^k}{\Gamma(k+1)\Gamma(d-k+1)}, \tag{4}$$

$$(1-L)^d = 1 - dL - 2\frac{1}{2}d(1-d)L^2 - \frac{1}{6}d(1-d)(2-d)L^3 + \cdots, \tag{5}$$

$$(1-L)^d = \sum_{k=1}^{\infty} C_k(d)L^k, \tag{6}$$

and $0 \leq d \leq 1$ is the fractional differencing parameter.

The empirical outcome in general shows that FIGARCH model has better performance in predicting volatility. Beine et al. (2002) and Lu (2007) found that FIGARCH model's projecting power is fairly better compared to GARCH and IGARCH.

(3) Structural Break

Non-stationary time series variables maybe exist in structural break, or multiple structural breaks. The iterated cumulative sums squares test (ICSS) proposed by Inclan and Tiao (1994) was designed to identify sudden changes to the unconditional volatility of a series. Therefore, the variance of the series is assumed to continue constant initially until a sudden change in volatility takes place. After this point the variance is assumed to remain constant until another sudden change in variance occurs. This series must be unrelated with mean zero and variance σ_t^2.

$$\begin{aligned}\sigma_t^2 &= \xi_0 \quad 1 < t < \mathscr{k}_{\mathscr{k}}\\ &= \xi_1 \quad \mathscr{k}_1 < t < \mathscr{k}_3\\ &= \xi_{N\xi} < t < \mathscr{k}_T,\end{aligned}$$

where $1 < \mathscr{k}_1 < \mathscr{k}_1 < \cdots < \mathscr{k}_{NT} < T$, are the various points where the changes in variance occur; N_T is the total number of changes; ξ_j is the variance within each of the periods $(j = 0,1, \dots, N_T)$

Inclan and Tiao (1994) proposed the statistic D_k Based on the cumulated sum of the square of the series to detect the amount and the time point at which these changes happen.

$$C_k = \sum_{t=1}^{k} X_t^2, \tag{7}$$

$$D_k = \left(\frac{C_k}{C_T}\right) - \frac{k}{T}, \qquad k = 1, \dots, T \ ; \ D_0 = D_T = 0, \tag{8}$$

where C_k and C_T are the mean centred cumulative sums of squares designed k and T observations, respectively.

If there are no variance changes over the sample period then the series D_k oscillates around zero. It drifts up or down from zero when a variance shift occurs. The quantity $(\left(\frac{T}{2}\right) D_k)^{\frac{1}{2}}$ converges in distribution to a standard Brownian motion. The change point of variance over the interval t=1,…, T, is the point k_0 for which $(\left(\frac{T}{2}\right) D_k)^{\frac{1}{2}}$ reaches its maximum and $(\left(\frac{T}{2}\right) D_k)^{\frac{1}{2}} > C_\alpha$, where C_α is a breaking value. At the 5 % level, the breaking value is 1.358. (Inclan and Tiao, 1994)

For any time t_1 and t_2 with $t_1<t_2$, the notation X $[t_1 : t_2]$ is adopted to indicate the extracted series $\{X_{t1}, X_{t+2},\dots,X_{t2}\}$ and $D_k(X[t_1 : t_2])$ denoted by the value of D_k calculated from $\{X_{t1}, X_{t+2},\dots,X_{t2}\}$. First we set t_1=1.

To compute D_k (X $[t_1 : T]$), let k^* (X $[t_1 : T]$) denote the point where $\max_k |D_k[t_1 : T]|$ is reached. Then set

$$M\ (t_1 : T) = \max_{t_1 \le k \le T} \left(\frac{T - t_1 + 1}{2}\right)^{\frac{1}{2}} |D_k[t_1 : T]|. \tag{9}$$

If M $(t_1$: T) $>C_{0.05}$, then k^*(X $[t_1$:T]) can be considered as a structural break point, and if M(t_1:T) < $C_{0.05}$, then there is no variance change in the series.

Patricia and Nikolaos (2009) referred that the ICSS method can identify periods of high and low exchange volatility. Lin (2011) and Charfeddine et al. (2011) revealed that the observed long memory behavior is spurious and led to the presence of breaks in the data.

(4) GARCH Model Estimations with Changes in Variance

Lamoureux and Lastrapes (1990) and Glosten et al. (1993), combined with GARCH and dummy variables representing the various changes in variance. The modified GARCH model cited by Arago and Fernandez (2003) is taking into account the detected changes in unconditional variance.

$$h_t^2 = \alpha + \sum_{i=2}^{p} F_i D_i + \sum_{i=1}^{p} \beta_i h_{t-i}^2 + \sum_{i=1}^{q} \delta_i \varepsilon_{t-i}^2, \quad (10)$$

$$h_t^2 = \alpha + \sum_{i=2}^{p} F_i D_i + \sum_{i=1}^{p} \beta_i h_{t-i}^2 + \sum_{i=1}^{q} \delta_i \varepsilon_{t-i}^2 + \gamma S_{t-1}^{-} \varepsilon_{t-1}^2, \quad (11)$$

where D_i are dummy variables (break) that reflect the changes in variance; the parameters that accompanied these variables (F_i) reflect the differences with respect to α.

Noted that S_{t-1} is equally to the unit if ε_{t-1}<0 (innovation in t=1), and zero if ε_{t-1}>0. The asymmetrical effect is captured if γ>0. The different effect on the volatility depends on the sign of the innovation in t-1.

Lamoureux and Lastrapes (1990) pointed out that the high persistence occurred when applying GARCH models due to incorrect specification, without considering the possible deterministic changes in the unconditional variance.

III. Empirical Result

The result demonstrated that all travel and tourism index returns have positive average returns and small standard deviation in Table 1. Most of the data has negative skewness for (DJI) except (^DJUSTT) and (FTSE). For (NZSE) tourism indexes, all have positive skewness. The result of kurtosis value, most of the data have a leptokurtic distribution except for FTSE XUK-TRAVEL & LEI (WIXUKS5750L). The significant Jarque-Bera Statistic for residual normality shows that the travel index and tourism indexes are under a non-normal distribution. With a Q correlation coefficient shows that all data samples have no serial correlation.

For unit root testing we employ Augmented Dickey Fuller (ADF) proposed by Dickey and Fuller (1979) to make clear the variable having stationary or non-stationary. In Table 2, this study rejects the null hypothesis and it represents that all of them perform revealing significantly stationary and appropriate for further testing. We use the minimum value of Akaike Information Criterion to identify the optimal model of ARMA. By using the LM test, this study observes whether the residuals have series correlation or not. The results showed that the entire variables were insignificant; suggesting that we can accept the null hypothesis of no autocorrelation and all of them has the effectiveness. To test the ARCH effect, this paper uses the Lagrange Multiplier test (ARCH-LM) (Engle, 1982). There is ARCH effect, if the ARCH-LM was significantly rejected the null hypothesis.

Table 1 The Descriptive Statistics of Variables.

Period	Index								
[illegible]	Tourism Capital (^NZLT)								
[illegible]	Tourism Gross (^NZLTG)								
[illegible]	Asia Pacific Travel & (^P1CGS)								
[illegible]	U.S. Travel & Leisure (^DJUSCG)								
[illegible]	U.S. Travel & Tourism (^DJUSTT)								
[illegible]	Americas 600 Travel & Leisure (^SXA1CGS)								
[illegible]	UK Travel & Lei (WIXUKS5750.L)								
[illegible]	Euro Travel (EB5700.L)								

Note: *, ** and *** are significant at 10, 5 and 1% levels, respectively; p-values are in parentheses.

Sources: Yahoo Finance- Various Inception date up to 13 July 2012.

Table 2 Summary Statistics of Unit root, ARMA, LM, ARCH-LM and GARCH.

Market	Index	ADF	ARMA	AIC	LM	ARCH-LM	GARCH	AIC	ARCH-LM
NZSE	Leisure & Tourism Capital (^NZLT)	-54.3245***	(2,3)	-5.8607	1.0415	6.7861***	(3,2)	-5.9770	0.5240
	Leisure & Tourism Gross (^NZLTG)	-54.5573***	(3,3)	-5.876	0.1939	6.8388***	(3,1)	-5.9922	0.0006
DJI	Dow Jones Asia Pacific Travel & (^P1CGS)	-50.8060***	(3,3)	-6.2251	2.0953	29.9956***	(3,1)	-6.3786	2.3963
	Dow Jones U.S. Travel & Leisure (^DJUSCG)	-52.5160***	(3,3)	-5.5514	0.5827	145.7823***	(2,2)	-5.9425	0.0000
	Dow Jones U.S. Travel & Tourism (^DJUSTT)	-44.3249***	(1,1)	-4.7163	0.9037	36.4981***	(2,3)	-5.0884	0.0028
	STOXX Americas 600 Travel & Leisure (^SXA1CGS)	-31.7647***	(3,3)	-5.6546	1.2690	74.4540***	(3,3)	-6.0707	0.3779
FTSE	FTSE XUK-Travel & Lei (WIXUKS5750.L)	-42.8314***	(3,2)	-6.3459	3.0672	29.6887***	(3,3)	-6.5014	0.5415
	FTSEuro Euro Travel (EB5700.L)	-5.3401***	(3,2)	-5.3435	0.8775	18.9595***	(3,2)	-5.5788	0.0003

Note: *, ** and *** are significant at 10, 5 and 1% levels, respectively; p-values are in parentheses.

Table 3 Summary Statistics of ARFIMA and ARFIMA-FIGARCH models with all periods

Market	Index	ARFIMA				ARFIMA-FIGARCH			
		Model	d-coeff.	AIC	ARCH-LM	d-coeff.	Model	d-coeff.	AIC
NZSE	Leisure & Tourism Capital (^NZLT)	3,3	-0.0412(0.312)	-5.8610	3.0493 *** [0.0095]	0.0399 ** (0.0572)	2,1	0.6257*(0.0865)	-5.9745
	Leisure & Tourism Gross (^NZLTG)	3,2	-0.0159 (0.495)	-5.8749	3.3770*** [0.0048]	-0.0325 (0.2710)	2,2	0.7033***(0.0020)	-5.9940
DJI	Dow Jones Asia Pacific Travel & (^P1CGS)	2,3	-0.0385* (0.100)	-6.2176	96.503*** [0.0000]	-0.0510(0.4843)	3,2	0.3624***(0.0000)	-6.3717
	Dow Jones U.S. Travel & Leisure (^DJUSCG)	3,3	0.0154(0.786)	-5.5485	131.75 *** [0.0000]	0.0652 (0.8197)	3,2	0.8101***(0.0000)	-5.9437
	Dow Jones U.S. Travel & Tourism (^DJUSTT)	2,2	0.1489***(0.033)	-4.7154	58.913*** [0.0000]	0.0554 (0.3697)	1,2	1.2006***(0.0000)	-5.0844
	STOXX Americas 600 Travel & Leisure (^SXA1CGS)	2,2	-0.0308 (0.128)	-5.6545	82.723 *** [0.0000]	-0.0141 (0.6251)	3,2	0.7623***(0.0000)	-6.0660
FTSE	FTSE XUK-Travel & Lei (WIXUKS5750.L)	3,2	-0.0461 (0.210)	-6.3410	26.202*** [0.0000]	-0.0244 (0.5400)	2,1	0.6218***(0.0008)	-6.4901
	FTSEuro Euro Travel (EB5700.L)	2,3	-0.0340 (0.322)	-5.3415	14.385 *** [0.0000]	0.1926 (0.6365)	2,2	0.3332***(0.0000)	-5.5684

Note: *, ** and *** are significant at 10, 5 and 1% levels, respectively; p-values are in parentheses.

The result showed that all data were significant and rejected H_0 meaning that regression was effective. Engle (1982) proposed a GARCH model to describe the variance of the residuals change over time. After the GARCH model identified, ARCH-LM test can be used to identify whether variables have ARCH effect or not. This study shows that all variables were insignificant, meaning to say that there is no ARCH effect.

Table 3 presents the consequence for both ARFIMA and ARFIMA-FIGARCH models. We test the ARFIMA (0, d, 1) to ARFIMA (3, d, 3) based on the minimum AIC to get the optimum model and measure the parameter d to estimate the existence of long memory. If we notice the value of d coefficient, all variables are below than 0.5, revealing that the time series variable is stationary. Intermediate memory existed because the result of d-coefficient -0.5<d<0. The return index of (^P1CGS) cannot be represented by any autoregressive process because it exhibited a non-invertible stationary process, while (^DJUSTT) showed a long memory process. These findings are consistent with the result of Nouira et al. (2004), Kang and Yoon (2007), Floros et al. (2007), Choi and Hammoudeh (2009), Tan and Khan (2010), and Chen and Diaz (2012). It indicated that (^DJUSTT) can be predicted.

Table 4 illustrates the effect of multiple structural breaks. Perron (1989) in his study found that there are two structural breaks. The first is in 1929 with the great depression and the second is the oil price crisis in 1973. This study uses (ICSS) to recognize sudden changes to the unconditional volatility of a series. The ICSS method detected the multiple structural breaks. If the value calculated by $\max_k\left(\left(\frac{T}{2}\right)|D_k|\right)^{\frac{1}{2}}$ is bigger than 1.358, it means that there is a structural break. The empirical results revealed that mostly variable has multiple structural breaks. (^NZLT), (^NZLTG) and (^DJUSCG) have a structural break at 15 June, 2001 because of the impact of recession, caused by unreasonable excitement in high technology. In 1999, there was an economic explosion in computer and software sales caused by the year 2000 (Y2K) shock. Many companies and individuals bought new computer systems to make sure their software was Y2K compliant. As a consequence, the stock price of many high technology companies started to rise. This led to a lot of investors' money flow to different kind of high-tech companies. The excitement for dot.com companies became unreasonable. Moreover, high interest rates were a reason of recession, because not only it restricted liquidity, but also reduced the amount of money to invest. In spite of the stock market decline in March 2000, the Federal Reserve persistently raised interest rates to a high level of 6.25% in May 2000, damaging low rates for cheap business loans and mortgages. On 25 July, 2007, (^NZLT), (^NZLTG) and (^DJUSCG) have the same structural break. There are many reasons during structural break time because of the early economic crisis in 2008. The price of oil almost tripled from \$50 to \$147 from early 2007 to 2008, before falling as the financial crisis began in late 2008, influence transportation expense including for tourisms expense. Rapid increases in an amount of commodity prices followed the collapse in the housing bubble.

Table 4 The Result of Structural Breaks

Market	Variables	Change Points	Interval	$\max_k\left(\left(\frac{T}{2}\right)\lvert D_k\rvert\right)^{\frac{1}{2}}$
NZSE	Leisure & Tourism Capital (^NZLT)	2007/6/15	2000/01/06-2012/7/13	17.6057
	P1	**2001/6/15**	2000/01/06-2001/9/28	6.9837
	P2	**2007/7/25**	2001/10/1-2009/4/7	22.5917
	P3	**2012/2/13**	2007/6/19-2012/7/13	30.8462
	Leisure & Tourism Gross (^NZLTG)	**2007/7/25**	2000/01/06-2012/7/13	17.8586
	P1	**2001/6/15**	2000/1/6-2001/10/19	7.5321
	P2	2007/7/26	2001/10/22-2009/3/20	22.8385
	P3	**2012/2/13**	2009/3/23-2012/7/13	34.1841
DJI	Dow Jones Asia Pacific Travel & (^P1CGS)	2004/6/15	2002/3/1-2012/7/13	13.1091
	P1	2004/6/7	2002/3/1-2008/8/18	13.1068
	P2	2012/6/27	2008/8/19-2012/7/13	28.6978
	Dow Jones U.S. Travel & Leisure (^DJUSCG)	2007/6/15	2001/12/26-2012/7/13	17.6410
	P1	**2001/6/15**	2000/1/6-2001/9/17	6.6032
	P2	**2007/7/25**	2001/9/18-2009/4/3	22.4432
	P3	**2012/2/13**	2009/4/6-2012/7/13	34.2630
	Dow Jones U.S. Travel & Tourism (^DJUSTT)	**2008/1/3**	2004/12/21-2012/7/13	15.8160
	P1	**2008/1/3**	2004/12/21-2010/5/18	29.4953
	P2	2011/7/28	2009/3/12-2011/10/3	23.1546
	P3	2011/10/5	2011/10/4-2012/7/20	29.0222
	STOXX Americas 600 Travel & Leisure (^SXA1CGS)	2008/1/1	2003/11/12-2012/7/13	17.6755
	P1	2008/1/1	2003/11/12-2009/4/2	17.6816
	P2	2009/12/15	2009/4/3-2009/12/15	26.1056
	P3	2010/4/26	2009/12/15-2012/7/13	28.2705
FTSE	FTSE XUK-Travel & Lei (WIXUKS5750.L)	**2008/1/3**	2004/4/19-2012/7/13	11.5717
	P1	**2008/1/3**	2004/4/19-2008/11/20	11.5404
	P2	2008/12/2	2008/11/21-2011/7/18	23.1887
	P3	2011/7/29	2011/7/19-2012/7/13	29.4953

	FTSEuro Euro Travel (EB5700.L)	2007/11/6	2004/9/22-2012/7/13	14.1149
	P1	2007/11/6	2004/9/22-2009/3/9	14.1010
	P2	2009/12/15	2009/3/10-2009/12/15	22.2711
	P3	2010/4/21	2009/12/16-2010/8/3	24.7803
	P4	2011/7/29	2010/8/4-2011/10/17	26.7234
	P5	2011/10/19	2011/10/18-2012/7/13	28.7566

Source: Organized by the Authors

Table 5 The effect of structural breaks with whole period

Market	Variables	GARCH	AIC	F & R
NZSE	Leisure & Tourism Capital (^NZLT)	(2,3)	-5.9808	F_1=0.9474(0.000***)
				F_2=-0.0001(0.5973)
				F_3=-0.0001(0.1879)
				r= 0.0538(0.000***)
	Leisure & Tourism Gross (^NZLTG)	(3,3)	-5.9975	F_1= 0.9446(0.000***)
				F_2= 0.0001(0.3949)
				F_3=0.0001(0.9872)
				r= 0.0602(0.000***)
DJI	Dow Jones Asia Pacific Travel & (^P1CGS)	(3,3)	-6.3741	F_1= 0.8695(0.000***)
				F_2= -0.0001(0.2302)
				r= 0.0394(0.0099***)
	Dow Jones U.S. Travel & Leisure (^DJUSCG)	(3,3)	-5.9787	F_1= 0.9344(0.000***)
				F_2= -0.0001(0.9916)
				F_3=-0.0001(0.7604)
				r= 0.0572(0.000***)
	Dow Jones U.S. Travel & Tourism (^DJUSTT)	(1,1)	-5.0829	F_1= 0.9351(0.000***)
				F_2= 0.0001(0.3948)
				F_3=0.0001(0.7217)
				r= 0.0141(0.3093)
	STOXX Americas 600 Travel & Leisure (^SXA1CGS)	(3,3)	-6.0559	F_1= 0.9182(0.000***)
				F_2= -0.0001(0.8655)
				F_3=0.0001(0.3227)
				r= 0.0178(0.238)
FTSE	FTSE XUK-Travel & Lei (WIXUKS5750.L)	(3,2)	-5.7223	F_1= 0.9312(0.000***)

				F_2= 0.0001(0.2782)
				F_3=0.0001(0.3289)
				r= 0.0302(0.019**)
	FTSEuro Euro Travel (EB5700.L)	(3,2)	-5.5666	F_1= 0.9137(0.000***)
				F_2= 0.0001(0.2932)
				F_3=0.0001(0.652)
				F_4= 0.0001(0.362)
				F_5=0.0001(0.188)
				r= 0.0539(0.0001***)

Source: Organized by the Authors.

Table 4 demonstrates a structural break for (^NZLT), (^NZLTG), and ^DJUSCG) have the same date for structural break, at 13 February, 2012. The reason is because the oil prices are really high. Oil prices started increasing a large amount earlier in 2012 than what happen in the year of 2011. On 13 February, 2012, West Texas Intermediate (WTI) prices of crude oil higher than $100 a barrel. In the same week, the rising of oil prices also drove gas prices rose above $3.50 a gallon. In January, gas prices had already breached $3.50 a gallon on the East and West coasts. People are worried because gas and oil prices are rising earlier than they did in the earlier period. On the other hand, the same forces are at play, some of them are supply and demand, but more of it is based on the expectations of commodities markets.

Likewise, Dow Jones U.S. Travel & Tourism, FTSE Xuk-travel & lei and FTSEuro euro travel they have the similar structural break around 28 to 29 July, 2011 because of information that the U.S. economy grew 1.3% in the second quarter 2011, according to the Bureau of Economic Analysis (BEA)'s estimation of GDP. This was significantly better than the revised 0.4% growth in the first quarter. This news has impact to travel and tourism index for U.S and Europe.

Further findings for Dow Jones U.S. Travel & Tourism, STOXX Americas 600 Travel & Leisure and FTSE Xuk-Travel & Lei have structural breaks on 3 January, 2008. As we know that this time is during the period of subprime mortgage crisis. Subprime mortgage crisis condition giving a big impact of global market. That situation presents the influence for tourism activities; many people do not have much money to go take a trip, and will give impact to travel and tourism indexes.

Dow Jones Asia Pacific Travel on 27 June, 2012 has structural break. According to Asia-Pacific Business Traveler Research 2012, average executive took 10 trips in the first half of 2012 vs. 6 trips last year. To better understanding the travel and behavioral preferences of business travelers based on the region. The survey of Accor Asia-Pacific Business Traveler Research interviewed almost 2,600 respondents representing 26,000 business trips from nine countries in Asia-Pacific who made business trips in the first half of the year.

This study uses the GARCH model with the dummy variable (F) determined by the value of ICSS method. If the value is bigger than the criteria value of 1.358, F is equal to one. Otherwise, F is equal to zero. The variables F_i are reflected the differences with respect to the variance of the F_1 in the study period. This study also uses the r to test the asymmetrical effect. If r is significant and positive based on the AIC for selecting a better fitting model, the asymmetrical effect exists.

Table 5 shows that the effect of structural breaks for tourism and travel indexes. For example, the estimated coefficient of F_1 for the Leisure & Tourism Capital is significant and the estimated value is 0.94742, which evidences an increase in the value of the unconditional variance for the Leisure & Tourism Capital. In Leisure & Tourism Capital, the estimated value F_3 is significant and the estimated value is -0.0001, which evidences a decrease compared to the value of unconditional obtained for the F_3 in the third sub-period.

The results shows that all tourism and travel indexes coefficient of F_1 are positive significant, suggesting that an increase in the value unconditional variance obtained for all tourisms and indexes from New Zealand, USA, and Europe.

Arago and Fernandez (2003) pointed out that the predictable value of fifth sub-period was 3.51, which evidenced an increase compared with the value of the unconditional variance obtained for the first sub-period in Spanish stock market. The resulting coefficient r turned out to be positive and significant except Dow Jones U.S. Travel & Tourism and STOXX Americas 600 Travel & Leisure, and the result shows that asymmetrical effect exists, and almost all positive significant.

Table 6 summarizes for long memory test and New Zealand and Europe market for Tourisms and travel indexes have intermediate long memory, while USA market mostly has a long memory. Structural break test shows that all markets in New Zealand, Europe and USA have structural breaks, and some have similar dates during 2007 and 2008. Those situations have happened because of that time oil price increase the early economic crisis 2007. Melvin and Taylor (2009) mention the current financial crisis that began in 2007 has created the supreme financial disorders since the Great Depression of the 1930s. As with most industries, the hospitality and tourism sector is experiencing numerous challenges as a result of the global economic crisis. The impact of a shrinking capital market and decreased spending by both corporate and individual consumers indirectly affect the tourism business. For example, the subprime mortgage crisis in 2008 has great impact also for tourism and travel indexes.

Table 6 The result of testing Long Memory and Structural Break Test

Long memory effect			
Index	NZSE	DJI	FTSE
Leisure & Tourism Capital (^NZLT)	Intermediate long memory		
Leisure & Tourism Gross (^NZLTG)	Intermediate long memory		
Dow Jones Asia Pacific Travel & (^P1CGS)		Long memory	
Dow Jones U.S. Travel & Leisure (^DJUSCG)		Long memory	
Dow Jones U.S. Travel & Tourism (^DJUSTT)		Long memory	
STOXX Americas 600 Travel & Lei (^SXA1CGS)		Intermediate long memory	
FTSE Xuk-Travel & Lei (WIXUKS5750.L)			Intermediate long memory
FTSEuro Euro Travel (EB5700.L)			Intermediate long memory
Structural break test			
Index	NZSE	DJI	FTSE
Leisure & Tourism Capital (^NZLT)	2007/6/15		
Leisure & Tourism Gross (^NZLTG)	2007/7/25		
Dow Jones Asia Pacific Travel & (^P1CGS)		2004/6/15	
Dow Jones U.S. Travel & Leisure (^DJUSCG)		2007/6/15	
Dow Jones U.S. Travel & Tourism (^DJUSTT)		2008/1/3	

STOXX Americas 600 Travel & Lei (^SXA1CGS)		2008/1/1	
FTSE Xuk-Travel & Lei (WIXUKS5750.L)			2008/1/3
FTSEuro Euro Travel (EB5700.L)			2007/11/6

Source: Organized by the Authors.

IV. Conclusion

The empirical result presents several findings. First, it is most of the variables are having intermediate memory and some shows long memory. The investors can notice the history and become aware about the market condition changes, especially for tourism and travel activities. Second, we discovered that most of the variables have structural breaks which are connected to the similar date at different markets. For Examples Leisure & Tourism Capital and Leisure & Tourism Gross trade at New Zealand Stock Exchange have the same structural break with Dow Jones U.S. Travel & Leisure trade at Dow Jones Indexes. It means that circumstances like recession 2001, crisis in 2007 and oil price crisis in 2012 have an impact on the global market.

Third, we also found that New Zealand and Europe have a strong asymmetrical effect, but in the USA just Dow Jones Asia Pacific Travel and Dow Jones U.S. Travel & Leisure have a strong asymmetrical effect. New Zealand and Europe market are relatively not stable compared with USA market, and investors must be cautious to invest in New Zealand and Europe market, especially for tourism and travel indexes.

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Long-Memory and Structure Breaks in Carbon Price.

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Abstract

This paper aims to investigate the long-memory properties of four carbon indexes by utilizing the autoregressive frictionally integrated moving average–fractionally integrated general autoregressive conditional heteroskedasticity models. First, this study discovered a significant long-memory effect for two carbon indexes such as CCX and JOI, whereas others like CER and EUA possess intermediate memory in the returns. Second, the multiple structure breaks in the four carbon indexes were examined using the iterated cumulative sum of squares algorithm. Evidence shows that the sudden shifts are mainly attributed to macroeconomic factors, energy dynamics, and political policies.

1. Introduction

In response to the threat of global warming, the Kyoto Protocol was signed and implemented at the United Nations Framework Convention on Climate Change in Kyoto, Japan, in December 11, 1997. The Kyoto Protocol was enforced on February 16, 2005, aimed to limit emissions of greenhouse gases (GHG) from developed countries and to continue controlling the global warming phenomenon. The Kyoto Protocol agreement has set binding targets for 37 industrialized countries and the European community for reducing GHG and developing new energy technology. Based on the agreement, countries must meet their targets primarily through national measures. Thus, the Kyoto Protocol offers these countries an additional means of meeting their targets through three market-based mechanisms, namely, emissions trading, known as "the carbon market;" clean development mechanism (CDM); and joint implementation. Meanwhile, emissions trading enable countries that have emission units to spare or to sell this excess capacity to countries that are over their targets. Therefore, a carbon price that was created in the form of emission reductions or removals are now tracked and traded similar to any other commodity. A carbon price is the cost applied to carbon pollution to encourage polluters to reduce the amount of GHG they emit into the atmosphere.

In the international carbon trading market, the carbon commodities are distinguished into two types. The first type includes emission trading systems, such as the European Union, Australia, the Chicago Board of Trade, and the United Kingdom emission trading markets, which facilitate the creation of carbon permits (Allowance). The second type is based on the reduction plan (such as the CDM and joint reductions or other voluntary reduction plans) to reduce credit.

This study first examines whether a long-memory effect in the carbon indexes exist given the aim of sustainability. Long-memory properties are examined in both carbon indexes returns and volatilities. Mabrouk and Aloui (2010) and Tan and Khan (2010) provided empirical proof based on the stock market returns of Tunisia and Malaysia, respectively. The current study utilizes the autoregressive fractional integrated moving average (ARFIMA) processes, in which the difference parameter is allowed to be a non-integer. The fractionally integrated general autoregressive conditional heteroskedasticity (FIGARCH) model is also employed to verify the long memory and asymmetry in four carbon indexes.

Second, this paper investigates structural breaks in volatility using the iterated cumulative sum of squares (ICSS) algorithm of Inclán and Tiao (1994). Through the GARCH model, the time-varying volatility of carbon indexes was extensively modeled to find high persistence in volatility. The ICSS algorithm that considers endogeneity has been applied in many papers such as Wang and Moore (2009) and Aggarwal et al. (1999) which examined emerging stock markets. Moreover, in emerging markets such as the carbon market, potential sudden shifts in volatility might occur. Therefore, these shifts should be addressed in estimating volatility persistence. The ICSS has endogenously identified changes in the volatility of carbon indexes. To the best of our knowledge, this technique has not been explored in the empirical analysis of carbon indexes with structural breaks. Alberola et al. (2008) examined the European Union Allowances (EUA) price break that occurred in April 2006 following the report of 2005 verified emissions to determine whether EUA spot prices react not only to energy prices with forecast errors, but also to unexpected temperature changes during colder events. Chevallier (2011a) has shown evidence of strong shifts in EUA mainly from the EGARCH and implied volatility models using retrospective and forward-looking tests. Thus, the current paper is the first to focus on transition carbon indexes using this technique.

This paper is organized as follows. Section 2 explains the ARFIMA–FIGARCH and ICSS models. Section 3 describes the data and presents the empirical results. Section 4 concludes.

2. Methodology

2.1 ARFIMA–FIGARCH model

Granger and Joyeux (1980) and Hosking (1981) applied and developed the long memory property through the ARFIMA (r, d, s) model and the time series is denoted like x_t, t = 1, …,T. Thus, the ARFIMA model can be exhibited as followed:

$$\Psi (L) (1 - L)^d (x_t - \mu) = \Theta (L)\varepsilon_t, \tag{1}$$

$$\varepsilon_t = z_t \sigma_t , \qquad z_t \sim (0,1) , \tag{2}$$

where d identifies a fractional integration of a real number parameter, μ identifies the conditional mean, ε_t identifies the independent and identically distributed (*i.i.d.*) random variables with a variance σ^2, and L denotes the lag operator. Whereas $\Psi (L) = \psi_1 L + \psi_2 L^2 + \ldots + \psi_r L^r$ performs the autoregressive (AR) and $\Theta (L) = \theta_1 L + \theta_2 L^2 + \ldots + \theta_s L^s$ performs moving-average (MA) polynomials outside of the time series.

As mentioned by Hosking (1981) and applied by Tan and Khan (2010), If d > 0, there is appearance of long memory effects in the long run period. Specifically, if $d \in (0, 0.5)$ and $d \neq 0$, the process is determined by a covariance stationary and mean reversion which there is no appearance of shocks in the long term. If $d \in (0.5, 1)$, the time series represents mean reversion. Because the long term influence does not appear on the future time series, the series is not covariance stationary. If $d \geq 1$, the process perform non-stationarity and non-mean reversion. In case of $d \in (-0.5, 0)$, the intermediate memory or antipersistence appears in the time series.

To capture long memory in return volatility, Baillie et al. (1996) proposed the FIGARCH model. This model has many applications in the field of modeling the conditional variance, covering the covariance stationary GARCH for $\bar{d}$=0 and the non-stationary FIGARCH for $\bar{d}$=1. The FIGARCH (p, $\bar{d}$, q) model is shown as:

$$\Phi(L)(1 - L)^d \varepsilon_t^2 = \omega + [1 - \beta(L)]v_t, \tag{3}$$

where v_t stands for the innovation of conditional variance, and the root of $\Phi(L)$ and $[1 - \beta(L)]$ is supposed to lie outside the unit root circle.

2.2 Structure break

This paper utilized the ICSS algorithm to interpret discrete changes in the variance of carbon index. As an assumption, the data displays a stationary variance over an initial period until a sudden change occurs. That is, a sudden change occurs as a result of a sequence of events causing the variance to revert to stationary until another change in variance occurs. Over time, this process is repeated to create a time series of observations with an unknown number of changes in the variance. This series must be uncorrelated with mean zero and variance σ_t^2.

Inclán and Tiao (1994) introduced the ICSS test to identify sudden changes in the unconditional volatility of a series.

$$\sigma_t^2 = \begin{cases} \sigma_0^2 & 1 < t < k_1 \\ \sigma_1^2 & k_1 < t < k_2 \\ & . \\ & . \\ & . \\ \sigma_{N_T}^2 & k_{N_T} < t < T \end{cases} , \quad (4)$$

where $1 < k_1 < \cdots < k_{NT} < T$ are the various points where the changes in variance occur.

Let $\{X_t\}$ indicate a series of independent observations from a normal distribution with zero mean. The variance in each interval is denoted by σ_j^2, j = 0, 1, …, N_T. Notably, N_T is the total number of changes.

Based on the ICSS of the series, the statistic D_k detects the number and time point at which these changes occur.

$$C_k = \sum_{t=1}^{k} X_t^2 , \quad (5)$$

$$D_k = \left(\frac{C_k}{C_T}\right) - \frac{k}{T} \qquad k = 1, \ldots, \mathrm{T};\; D_0 = D_T = 0 , \quad (6)$$

where C_k and C_T are the mean centered cumulative sums of squares calculated using k and T observations, respectively.

If no variance changes over the sample period, then the series D_k oscillates around zero. However, the series drifts up or down from zero when a variance shift occurs. The quality $\left(\left(\frac{T}{2}\right) D_k\right)^{\frac{1}{2}}$ converges in distribution to a standard Brownian motion. The change point of variance over the interval t = 1,…, T is the point k_0 for which $\left(\left(\frac{T}{2}\right) D_k\right)^{\frac{1}{2}}$ reaches its maximum and $\left(\left(\frac{T}{2}\right) D_k\right)^{\frac{1}{2}} > C_{\alpha,}\, where\, C_\alpha$ is the breaking value. At the 5% level, the breaking value is 1.358.

For anytime t_1 and t_2 with $t_1 < t_2$, the notation $\mathrm{X}[t_1 : t_2]$ is adopted to indicate the extracted series $\{X_{t1}, X_{t+2}, \ldots, X_{t2}\}$ and $D_k(X[t_1 : t_2])$, denoted by the value of D_k calculated from $\{X_{t1}, X_{t+2}, \ldots, X_{t2}\}$. First, this paper sets $t_1 = 1$.

To compute $D_k(X[t_1 : T])$, let k $(X[t_1 : t_2])$ denote the point where $max_k|D_k([t_1 : T])|$ is reached. Then set:

$$\mathrm{M}(t_1 : T) = max_{t_{1 \le k \le T}} \left(\frac{T - t_1 + 1}{2}\right)^{\frac{1}{2}} |D_k(X[t_1 : T])|. \quad (7)$$

If $\mathrm{M}(t_1 : T) > C_{0.05}$, then k^* $(X[t_1 : t_2])$ can be considered as a structure break point. If $\mathrm{M}(t_1 : T) > C_{0.05}$, no variance change in the series occurs.

The D_k function alone is insufficient to highlight the multiple structure breaks change points. Thus, Inclán and Tiao (1994) developed an algorithm that used the D_k function to systematically find the change points at different points of the time series. The algorithm is implemented by evaluating the D_k function over the time periods.

These different periods are also determined by break points, which are identified by the D_k plot.

2.3 GARCH model estimations with changes in variance

Arago and Fernandez-lzquierdo (2003) modified the GARCH model to consider the changes in unconditional variance. Thus, to identify the change points in variance, the GARCH model is utilized for the case without sudden changes. Using the dummy variables with GARCH allows the representation of various changes in variance. Lamoureux and Lastrapes (1990) and Glosten et al. (1993) proposed the following:

$$h_t^2 = \alpha + \sum_{i=2}^{p} F_i D_i + \sum_{i=1}^{p} \beta_i h_{t-i}^2 + \sum_{i=1}^{q} \delta_i \varepsilon_{t-i}^2, \quad (8)$$

$$h_t^2 = \alpha + \sum_{i=2}^{p} F_i D_i + \sum_{i=1}^{p} \beta_i h_{t-i}^2 + \sum_{i=1}^{q} \delta_i \varepsilon_{t-i}^2 + \gamma S_{t-1}^- \varepsilon_{t-1}^2, \quad (9)$$

where D_i refers to the dummy variables (break) that reflect the changes in variance; the parameters that present these variables (F_i) reflect the differences with respect to α. The estimated value for the first regime of variance is obtained. Moreover, S_{t-1} is equal to the unit as long as ε_{t-1}<0 (innovation in t=1) and zero when ε_{t-1}>0. If the value γ>0, the asymmetrical effect is captured. Lamoureux and Lastrapes (1990) proposed that the GARCH model overestimates the persistence in volatility by ignoring sudden relevant changes in variance.

3. Data and Empirical Results

The current paper uses four different datasets to compute the volatility measures of carbon prices. We collected a sample of CCX daily settlement price ($ per metric ton of CO_2) from December 19, 2003 to January 28, 2011. This dataset is collected from the Chicago Climate Exchange. Emission CER and EUA indexes are gathered from the European Union Greenhouse Gas Emission Trading Scheme. CER and EUA indexes (€ per ton of CO_2) are for CCX future contract of maturity for January 2009 (€ per ton of CO_2). The Japan Bank for International Cooperation (Carbon Credit Trading Platform) weekly data are collected from Japan Institute for Overseas Investment (JOI) website from April 21, 2008 to July 30, 2012.

Table 1 shows the descriptive statistics of four carbon index returns. Over the sample period, the JOI index is the most volatile with the standard deviation at 95.89%, followed by the EUA index at 0.65%, whereas the CER and CCX indexes appeared at 0.65% and 0.086%, respectively. The JOI index had the highest average negative returns posted at -11.2%, whereas the CCX index received the lowest average negative returns at -0.0005%. Most of the samples are negatively skewed. The Jarque-Bera statistic for residual normality illustrates that the four carbon index returns are under a non-normal distribution assumption. To eliminate the serial correlation and heteroskedasticity in the data, this research utilized the augmented Dickey–Fuller test to establish stationarity. The minimum value of the Akaike information criterion identified the optimal models. Based on the results of the Lagrange multiplier (LM) test, all carbon index return samples had no serial correlation. The ARCH–LM process was also used to test the ARCH effect, indicating that the GARCH models could be applied in the chosen sample because the null hypothesis was rejected for all the datasets.

Table 1: Descriptive statistics:

Index	Obs.	Mean	S.D.	Skewness	Excess Kutosis	J-Bera	Q(10)	$Q^2(10)$
CCX	1800	-0.0005	0.0864	-1.1080	29.132***	64017***	96.8674**	164.079**
CER	1017	-0.0119	0.2186	-0.0451	4.2187***	754.52***	38.3219**	221.131**
EUA	1724	-0.0091	0.6520	-0.6132	16.657***	20039***	1355.60**	461.829**
JOI	217	-11.2010	95.8980	-0.8636	8.6361***	701.32***	15.0132	21.0379*

Note: *, ** and *** are significance at 10, 5 and 1% levels, respectively.

According to the ICSS model, Figure 1 shows the return for each series with the points of sudden changes. As depicted by the charts, switching points ranged from three to four shifts for the four carbon indexes. These sudden changes can be clearly seen in Figure 2 and the returns for four carbon indexes and regime shift in volatility. This paper only focuses on the switching points and volatility increases.

Figure 1: Carbon indexes Volatility

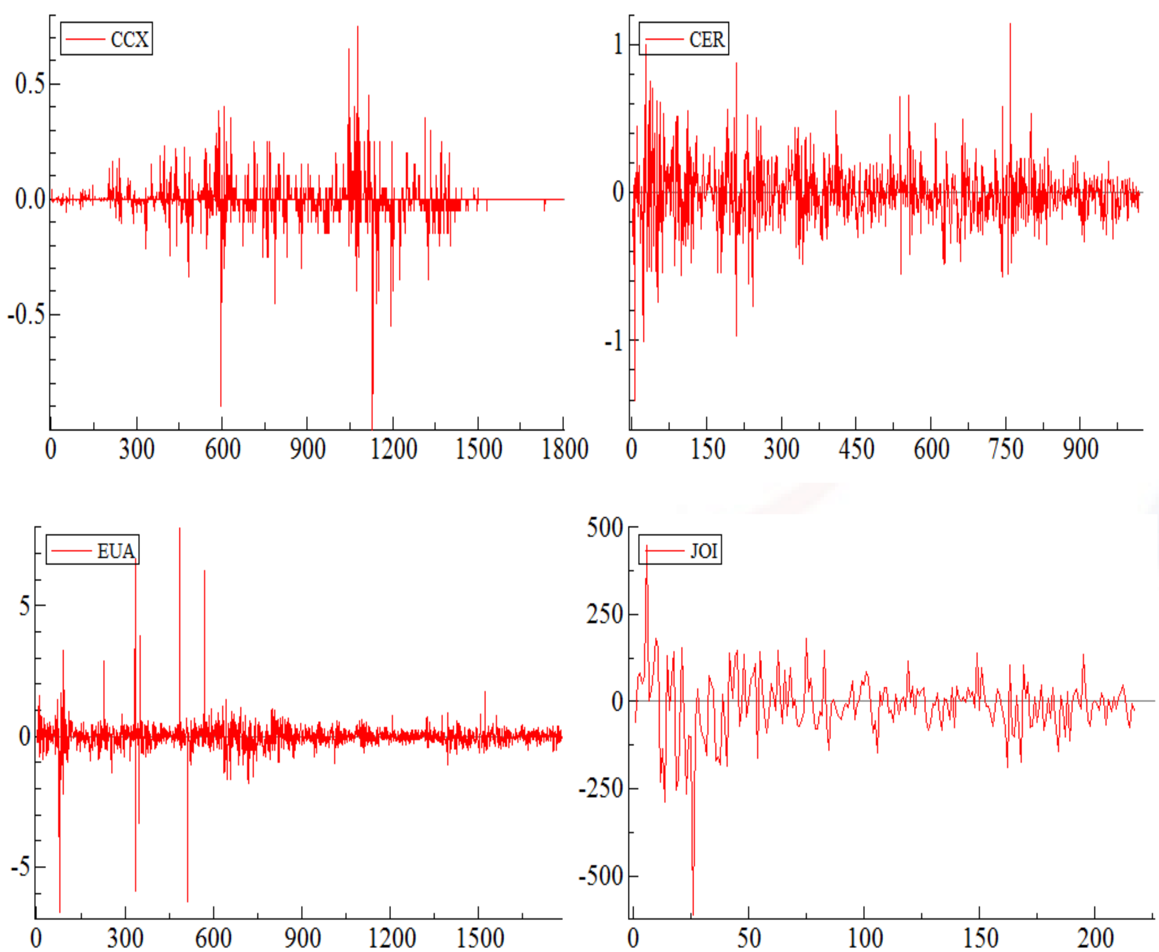
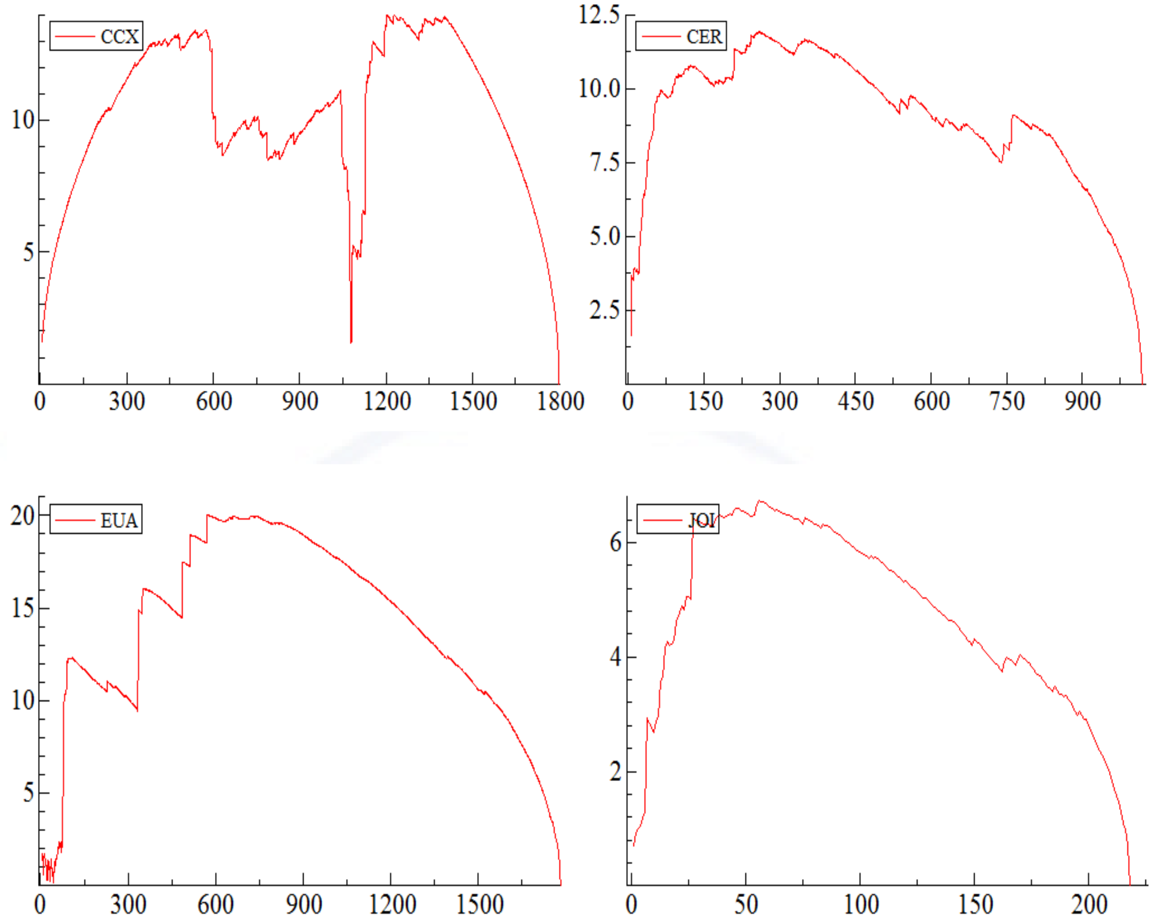


Figure 2: Returns for four carbon indexes and regime shifts in volatility (Change points are estimated using ICSS algorithm)



3.1 Long-memory effect

Table 2 illustrates the results of both the ARFIMA and ARFIMA–FIGARCH models for carbon indexes. The ARFIMA model identified three significant results. With $0 < d < 0.5$, long memory was found in the returns of the CCX and JOI and was significant. This long-term dependence in the observations will in the long run have the characteristic of self-correlation. The implication is that historical return data can be used to predict future return data because the observations are not independent with one another. The coefficient for EUA ($d < 0$) is significant at 5%. However, this coefficient presents intermediate memory in the returns. This finding is consistent with previous research such as the work of Feng et al. (2011). The ARFIMA–FIGARCH models show that the significant results in four carbon index returns have a stationary process but are non-invertible. Investors and traders can exploit this result by having a position on CCX and JOI, but earning extra returns for CER and EUA is difficult because their structures are inherently unstable. Consequently, these results show that the volatilities of CCX and JOI have predictable structures, and with correct modeling and forecasting, investors and traders can benefit from them.

3.2 Structure break

Table 3 describes the results of structure breaks using the ICSS method to investigate the volatility of carbon indexes. The results indicate switching points range from three to four shifts for carbon indexes.

Table 2: Estimated ARFIMA-FIGARCH model

Index	ARFIMA				ARCH-LM	ARFIMA-FIGARCH			
	Model	d-coeff.	AIC	LM		d-coeff.	Model	d-coeff.	AIC
CCX	(0,2)	0.168(0.000)***	-2.201	0.531	1.254	0.937(0.0000)***	(0,3)	0.589(0.0000)***	-2.987
CER	(3,3)	-0.024(0.614)	1.362	0.000	0.003	0.023(0.8635)	(2,2)	0.316(0.0007)***	-0.510
EUA	(3,3)	-0.173(0.040)**	3.210	1.238	0.038	0.102(0.6436)	(1,0)	0.189(0.0001)***	1.357
JOI	(1,0)	0.124(0.078)*	11.858	0.648	0.161	0.098(0.1908)	(3,3)	0.934(0.0000)***	11.682

Note: *, ** and *** are significance at 10, 5 and 1% levels, respectively.

Four regime shifts for the CCX index occurred, and the initial volatility was 13.43 in March 2006. This value implies that the carbon market was highly influenced by the electric power market because its participants are the main traders on the carbon market. This finding had been shown in the research of Alberola et al. (2008). Another change point was in November 2006 with the maximum value of 10.16. During this period, power generators have to produce more than they forecasted, which increased both allowance demand and CO_2 prices because of the decrease in temperature. This event was called a cooling day (cold event), as mentioned in the study of Alberola et al. (2008). The sudden increase in October 2008 is related to the energy crisis that happened in this year. The rise in crude oil was the highest in history, with a peak of US$143.95/barrel on July 18, 2008.

The EUA index experienced three change points in volatility. The first sudden change was an increase in volatility in June 2006, which can be explained by two main reasons. First, this period exhibited high economic growth and high energy growth, which increased the EUA price. Second, in May 2006, the Czech Republic, France, and Sweden announced that their positions would be longer than expected. Thus, the carbon price fell quickly until the European Commission issued formal certification data on May 15, 2006 that induced the carbon price to increase again. Moreover, the clustering effect and information shock asymmetry resulted in carbon price fluctuation. These findings are also in accordance with the findings on the estimation of chaos effect by Feng et al. (2011).

The second sudden change was an increase in volatility in May 2007. In this period, the carbon price was related to oil price because the price per barrel of crude oil had a rising trend that resulted in supply scarcity in the world market. This influence was improved through the carbon drivers in the Phase I and Phase II[1] equilibrium of Creti et al. (2012). Furthermore, in March 2007, the European Parliament's announcement about a continuing market until 2020 has boosted the price of allowances in the

[1] The European market was organized in three phases: Phase I in 2005 to 2007, Phase II in 2008 to 2012, and Phase III in 2013 until 2020.

futures market. The final sudden change, which was an increase in volatility in April 2008, also corresponds to the beginning of the energy crisis.

Table 3: Sudden changes in volatility

Index	Change point	Interval	max
CCX	24/03/2006	12/12/2003 - 16/06/2006	13.42817***
	27/11/2006	17/06/2006 - 02/12/2007	10.16035***
	30/01/2008	28/11/2006 - 19/03/2008	11.1152**
	23/10/2008	20/03/2008 - 31/01/2011	13.99675***
CER	07/07/2009	12/01/2009 - 10/09/2009	10.77112
	18/01/2010	11/09/2009 - 16/02/2011	11.93532*
	18/03/2011	16/02/2011 - 13/12/2012	9.76475
EUA	12/06/2006	09/01/2006 - 27/04/2007	12.30752***
	21/05/2007	28/04/2007 - 26/11/2007	16.05244***
	01/04/2008	27/11/2007 - 27/12/2012	20.04813
JOI	16/09/2008	21/04/2008 - 22/09/2008	4.481773**
	18/05/2009	29/09/2009 - 16/03/2011	6.549281***
	08/08/2011	20/06/2011 - 30/07/2012	4.205703***

Note: *, ** and *** are significance at 10, 5 and 1% levels, respectively;

As for the JOI index, a sudden change occurred in September 2008 largely as a consequence of the energy crisis. The sudden shift in May 2009 may also be associated with the 2008 compliance event in the carbon market. Recall that the "trough" date of the National Bureau of Economic Research business cycle dating committee[2] is June 2009. This event is also measured by Chevallier (2011b) in developing a model of carbon pricing by focusing on economic activity and energy prices.

3.3 GARCH model with structure breaks for asymmetrical effect

This study also investigates the volatility persistence of the four carbon indexes. Inclán and Tiao (1994) identified the critical value, which is 1.358 at the 5% level and is under the null of independently distributed normal shocks. Thus, the present research has estimated the GARCH model to determine the change points that are statistically significant and how these regime shifts can have a persistence effect on volatility. This process is implemented thrice: without regime shifts and with all of the sudden changes estimated by ICSS in variance. Therefore, the GARCH model is applied using dummy variable (F) based on the value from the ICSS model. If the value is greater than 1.358, F is equal to 1 and is zero for others. Moreover, this study also utilized r to examine the asymmetrical effect. Based on the minimum AIC when selecting the optimal fitting model, if r is positive and significant, the asymmetrical effect exists.

[2] See more on the NBER Business Cycle Expansions and Contractions at http://www.nber.org/cycle.html.

Table 4: The effect of structure breaks with dummy variable for four carbon indexes

	GARCH	AIC	F & r
CCX	(3,3)	1.734234	F1 = -2.2775(0.0053)***
			F2 = -2.0259(0.0029)***
			F3= -0.8541(0.0112)**
			F4= -2.3857(0.0018)***
			r =12.6892(0.000)***
CER	(1,2)	-0.54288	F1= 0.0033(0.1400)
			F2 = 0.0034(0.0956)*
			F3 = 0.0019(0.3247)
			r = 0.0697(0.0466)**
EUA	(3,1)	1.065114	F1= 0.0492(0.0000)***
			F2 = 0.6375(0.0000)***
			F3 = 0.0109(0.2556)
			r = 0.0736(0.0118)**
JOI	(0,2)	11.4469	F1= 10452.50(0.0174)**
			F2 = 1144.135(0.0000)***
			F3 = 958.0093(0.0000)***
			r = 0.0229(0.0412)**

Note: *, ** and *** are significance at 10, 5 and 1% levels, respectively;

Table 4 describes the results of the effect of structure breaks with dummy variable for the four carbon indexes. The table shows that the estimated coefficients for F_1, F_2, F_3, and F_4 of the CCX index are all negative and significant at the 1% and 5% levels. The value of the unconditional variance decreases when dummies are included. Moreover, in the CER index, F_2 is positive and significant at the 10% level, which is evidence of an increase in the value and stability of the unconditional variance. These results are also the same for the EUA and JOI indexes. However, the EUA and JOI indexes are significant for all sudden changes, except for F_3 in EUA. When all coefficients are positive, unconditional variance increases when the dummy variable is included. Likewise, another parameter considered in testing the asymmetry effect is r. For all carbon indexes, the r parameters are all positive and significant at the 1% level for CCX and at the 5% level for CER, EUA, and JOI. Thus, the asymmetrical effects are captured. These results are in accordance with those of Lamoureux and Lastrapes (1990) in that persistence in volatility is overestimated when applying the GARCH models to a series with sudden changes in variance.

4. Conclusions

This paper has focused on two issues: the examination of long memory using the ARFIMA–FIGARCH models and the investigation of the sudden change shifts of volatility and volatility persistence for four carbon indexes utilizing the ICSS algorithm methodology. Based on the results, this study makes the following contributions: First, the results of the ARFIMA–FIGARCH models revealed a significant long-memory process for the CCX and JOI indexes, indicating the possibility that they can be forecasted, making traders and investors gain extra profits by choosing the correct model. However, structures for CER and EUA are inherently unstable because of the intermediate memory in the returns, thus creating difficulty for traders in earning extra returns.

Second, this study has focused on the ICSS model to detect multiple structure breaks instead of testing a single break. The use of the ICSS algorithm revealed that sudden shifts are mainly interpreted by macroeconomic factors, energy dynamics, and political policies. The structure breaks may also be associated with temperature volatility, that is, the reaction to unanticipated temperature changes during the colder events, particularly with the CCX index. Furthermore, the sudden shifts were also derived from the international politics and negotiations, which developed significant volatility in carbon, like what happened to the EUA index.

Third, based on the GARCH model, the CCX and JOI indexes show a significant F_i, which indicates long-memory effects. Therefore, high volatility is present in the CCX due to several shifts in the early period; however, sudden changes have declined and showed a downward trend in volatility. Nevertheless, the CER, EUA, and JOI indexes exhibited some shifts and an upward trend. The implication is that the carbon market became gradually stable in transition economies. This condition requires traders and countries to consider the trends and factors that influence the carbon market to meet the second commitment to the Kyoto Protocol until 2020.

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Fraud as a Human Factor in Logistics Optimization – A Business Intelligence and Business Process Management Approach

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Abstract

Most of the companies in the world experience fraud which is also an important issue for logistics companies where most of the activities are conducted outside of the view of supervisors. Logistics optimization and fraud detection both employ mainly data intensive techniques. Usually it is assumed that data is available to decision makers for logistics optimization, however, in many cases this assumption may not be true. Humans can intentionally withhold data for various reasons, one of the most burning issue being their involvement in fraud.

Often mathematical models cannot help in this regard. We show that before employing data intensive techniques for logistics optimization, human factors needs to be considered and a common sense approach consisting of additional data streams may be helpful. Humans may have different motives for not sharing data for logistics optimization. We use a two year long case study to show the design and implementation of a systematic approach that can be adopted to detect fraud and ensure that it does not happen again.

JEL: R40, D81, L91

KEYWORDS: Fraud Detection; Logistics Optimization; Human Factors; Business Process Management; Business Intelligence; Case Study

INTRODUCTION

As per Pricewaterhouse Coopers, 30% of the world's companies experience fraud (PricewaterhouseCoopers, 2009). Techniques used to catch fraud are all data intensive e.g. bayesian analysis and statistics, data mining etc. So data plays an important role in detection of fraud. Optimization of logistics is important for the success of many companies since logistics amounts to approximately 7–15% of the retail price of a product (IBM, 2010, RedPrairie, 2009). Optimization of logistics is not possible without data. Logistics optimization models and fraud detection both mainly use techniques that require extensive data. Usually it is assumed that data is available to decision makers for logistics optimization, however, in many cases this assumption may not be true. We argue that humans can intentionally withhold data in case fraud is involved.

Ngai et al. (2011) highlighted the need to find *"practical solutions for practitioners"* to detect fraud. Such solutions should help them in designing, developing and implementing data mining and business intelligence systems for fraud detection purposes. Business Intelligence (BI) employs advanced data mining techniques. It organizes data, improves the data flow and presentation for effective decision-making, such as acquiring new customers, monitoring finances and discovering business anomalies like fraud (Olszak and Ziemba, 2007). Along with BI, Business Process Management (BPM) has also been established as a technique to improve the operations of an organization (Brocke and Rosemann, 2010).

In this paper, we research two questions: 1) How do Humans who are involved in fraud affect data acquisition for the purpose of logistics optimization and fraud detection. Figure 1 shows the scope of this question. 2) How can we design, develop and implement a systematic approach based on BI and BPM that can be used to detect fraud and ensure that it does not happen again.

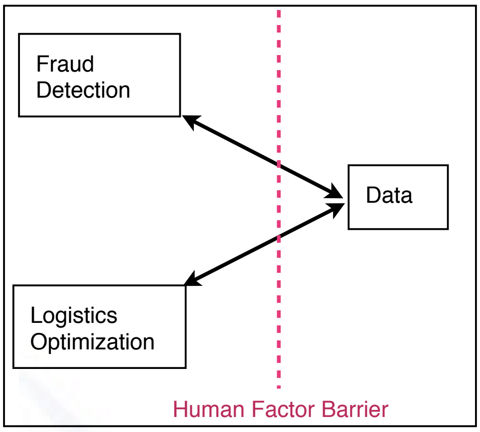

Figure 1: Scope of 1st Research Question: How Does Fraud as a human factor affect data acquisition.

The structure of the paper is as follows: In section one we start by reviewing literature to answer the research questions. Section two develops the conceptual framework for this purpose based on the literature, the design and implementation of which will be demonstrated on a case study in section three. We will analyze and discuss before concluding in section four.

1. LITERATURE REVIEW

1.1 Logistics Optimization

Logistics optimization is the efficient allocation and planning of resources like humans, time and goods, while keeping their constraints in mind for the transportation of goods from one point to another (Seuring, 2013). This involves dealing with people like fleet drivers, third party contractors and transport in-charges, so for a deeper understanding of optimization process, human aspects need to be considered (Giannoccaro, 2013) which explains the emerging field of behavioral logistics optimization. Logistics is a subset of supply chain (clm1.org, 2013) and supply chain (SC) falls under operations management (Heizer and Render, 2013). Operations management also has an exciting emerging field of behavioral operations management, that deals with understanding of human behavior to better understand and design the operations processes (Croson et al., 2013).

While there is a preponderance of mathematical models for optimization, the reality out there in the field suggests that, unless these models are coupled with behavioral aspects, the benefits are not likely to be maximized. Research in this area remains sparse (Tokar, 2010), with the systematic effect of behavioral biases and cognitive limits on managerial judgment and decision making in the logistics discipline not receiving a great deal of attention (Knemeyer and Naylor, 2011).

Researchers have started exploring the human aspects of logistics optimization, but often the focus has been on human resource management, the strategic nature of SCs and employees' competencies (Estampe et al., 2013, Lengnick-Hall et al., 2012, Jin et al., Shub and Stonebraker). This limits the view of human factors since it simply focuses on humans as "*resources*", works on how to develop them and ignores the fact that these resources have motivation, ambition, and (wrong) intentions. The research on human behavior shows that the way in which human factors affect the acquisition of data in optimization has not been systematically explored. The logistics optimization literature has developed several methods to deal with uncertainty and improve the robustness of solutions if data is unavailable or inaccurate (Klibi et al., 2010) and considers data availability as a criterion to work on a sustainable SC framework . But not enough has been done to study the various issues connected with data collection and the potential approaches to overcome them. This is an important omission since humans can play an important role in the acquisition of data and implementation of optimization solutions

1.2 Human Factors in Data Sharing: Logistics and Supply Chains Context

Humans play an important role in optimization. If people do not trust each other, they will not share sensitive data (Barratt, 2004, Spekman and Davis, 2004). Fawcett et al. (2012) shows unwillingness to share data as a hurdle in SC collaboration through a manager's quote: *"It is easier to get information from suppliers than from other groups within our firm.''* Hendriks (Hendriks, 1999) identified the need to study human motivators for sharing knowledge. Trust builds cooperative behavior (Hofer et al., 2012). Moreover, distrust is the reason for hiding knowledge, which endangers organizational improvement. People often hide data by "playing-dumb" (Connelly et al., 2012). Different incentives may motivate parties to share data, e.g. financial compensation contracts on one hand and personal relationship on the other (Kelly, 2010, Osterloh et al., 2001, Romano and Formentini, 2013).

When a person asks someone else for data, instead of sharing complete information, individuals often withhold information intentionally. Motivation is needed to not only give full and truthful information but also to act in the best interest of the company. For example, encouraging truth telling is a pre-eminent issue in the industry of third party logistics (Lim, 2000). Further, it has been identified by Cerne et al. (2013) that knowledge hiding not only hinders the generation of creative ideas for other team members but also has bad consequences for the knowledge withholder. In return, it also causes a circle of distrust and affects motivation.

1.3 Fraud Detection

Incorrect/inaccurate data is an important problem since 30% of the world's companies experience fraud (PricewaterhouseCoopers, 2009). Fraud is defined as *"the deliberate use of deception to conduct illicit activities. Automatic fraud detection involves scanning large volumes of data to uncover patterns of fraudulent usage, and as such it is well suited to data mining techniques"* (Fawcett and Provost, 2002)

Inventory fraud is the most common fraud in companies which have a high level of inventories (Lee and Fargher, 2012). The main reasons for such fraud include a lack of internal control in the company and geographically distributed locations (Lee and Fargher, 2012, Ashbaugh-Skaife et al., 2007). With regard to inventory fraud, a lack of control may bring risks related to a lack of proper measurement, the recording of inventory and misreporting due to theft. Moreover, the literature also identifies that a company is likely to face an internal lack of control if it has a greater geographical dispersion because a physical monitoring body is missing (Lee and Fargher, 2012, Ashbaugh-Skaife et al., 2007), which is usually the case in logistics. Different fields like healthcare, e-commerce, electricity and telecommunications have been identified in literature where fraud occurs. Common ways of catching fraud are based on numbers and data (like Bayesian analysis, data mining, visualization methods, game theory etc). Logistics finance is one of the types of fraud (Li et al., 2013) as seen in Table 1. This table organizes the literature that categorizes fraud and its different types. Each category lacks some research focus. It is clear from this table that human factors in fraud in logistics optimization context have not been focused so far, which makes a motive for this paper. Ngai et al. (2011) highlight the major flaw in literature:

"*Future research should direct its attention toward finding more practical principles and solutions for practitioners to help them to design, develop, and implement data mining and business intelligence systems that can be applied to FFD (Financial Fraud Detection)*."

Major Categories	Financial Fraud	Computer Intrusion/Fraud	Logistics Fraud	Telecom Fraud
Main Types	1. Credit Card (Offline and Online Frauds) 2. Corporate Fraud 3. Money Laundering	1. Misuse 2. Anomaly	1. Logistics Finance Fraud 2. Inventory Fraud	1. Subscription Fraud 2. Superimposed Fraud
Some Techniques Used for:	1. Outlier Detection 2. Neural Networks 3. Bayesian Statistics 4. Clustering 5. Regression 6.Visualization	1. Expert Systems 2. Neural Networks 3. Model Based Reasoning 4. Data Mining 5. State Transition Analysis 6. Adaptive Fraud Detection 7. Algorithms	1.Business Intelligence	1. Rule Based Approach 2. Neural Networks 3. Visualization Methods 4. Regime Switching Model
Lacks	Spatial Info and Lacks BI system development and implementation	Statistical	Emerging Area so lacks research	Exhaustive Rule Generation

Table 1: [1]Organization of Literature to show categories of Fraud and techniques used.

2. DEVELOPING A BI AND BPM APPROACH FOR LOGISTICS FRAUD DETECTION

Optimal decisions in logistics management are considered to be more information/data management than goods management (The Washington Post, 1999). BI organizes data, improves the data flow and presentation for effective decision-making, such as acquiring new customers, monitoring finances and discovering business anomalies like fraud (Olszak and Ziemba, 2007). The quality of BI solutions has been proven to be superior to that of traditional optimization solutions (Olszak and Ziemba, 2006). Thus, the first step in developing a possible logistics optimization and fraud detection approach is to apply a BI solution.

[1] Major Sources of this table are: Ferconi, 2013; Lee and Farghar, 2012; Ngai et al., 2011; Kou et al., 2004; Thompson, 2003.

Researchers argue that to improve the flow of data, changes in the companies' operational processes through redesign (and proper management) are required because without such changes only some of the possible benefits of any solution will be realized (Groznik et al., 2008). This explains the need for the Business Process Management (BPM) addition in the approach. Because BPR is a well-established area that cannot be applied without the help of IT (Groznik and Maslaric, 2010), IT is used as an enabler

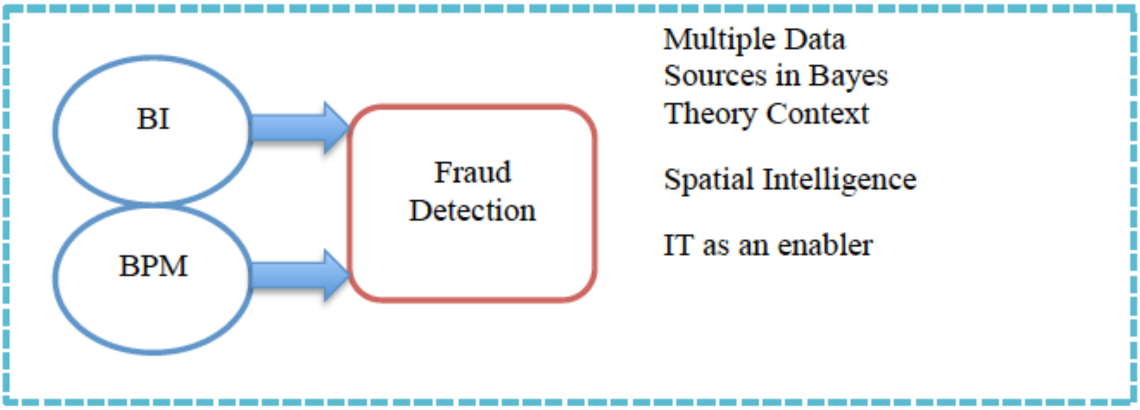

Figure 2: Fraud Detection Approach for Logistics Optimization

By being very specific in nature, mathematical models are unable to handle complex situations involving human factors like motivation, trust or fraud. BI offers a data flow and transparency in analyzing expenditures and monitoring business inconsistencies. But in order to achieve this the authentic cooperation of users in sharing data is required (Moss and Atre, 2003). We argue that humans will not share data if they are involved in fraudulent activities. Since, humans are often not considered while designing and managing the core logistical systems (Fawcett et al., 2011), it is advised to feed the same data in the BI system from different sources. Thus, based on Bayesian theory, we propose having different data sources/streams for the same data (even if some are wrong) will allow having different versions/perspectives of the truth and will allow intelligent insights (especially to catch fraud), which is the prime objective of BI systems (Ferconi, 2013). This proposed approach shall be applied in lieu with hotlines to communicate fraud activities (Lee and Fargher, 2012).

3. CASE STUDY

3.1 Methods

A case study is a recommended way to research an emerging area (Bandara et al., 2005, Stuart et al., 2002, Yin, 2003). A deeper understanding of fraud as a human factor in SC context was required for which Forslund (2011) also recommends a case study method. The purpose of the case study was to confirm the approach developed and further show detailed design and implementation. A longitudinal case study was deemed fit to understand human factors. It also minimizes the bias that is caused by informant's need to show a good impression (Eisenhardt and Graebner, 2007).

In literature as well as in our experience people tend to exaggerate and dress up the situation during interviews (Eisenhardt and Graebner, 2007). Since, main advantage of one the authors working for the company (referred to as SkyTelecom) and executing the optimization project is that it allowed an unlimited access/interaction with people and data for triangulation that improved reliability and validity (Eisenhardt, 1989, Yin, 2003). Although this main advantage can itself cause a bias and is our limitation, but the different perspectives, deep insights of company's mechanics and relationship with employees to share their problems and observations freely are also what makes our research unique as it is a first hand account of an academic researcher as well as a practitioner.

A longitudinal case study was conducted from September 2010 until October 2012. Internal documentation and previously developed process models were examined. Informants ranged from vendors to third parties and spanned to almost all hierarchies. Structured and semi-structured interviews, workshops, one to one talks, informal lunch meetings, weekly/bi-weekly/monthly stake holder meetings (and other miscellenious official meetings when the project required) totaled up to 545 meet-ups over two years. Here several department's informants meeting in one sitting/meeting counts as one meetup. The purpose of these meet-ups ranged from understanding of the the logistics process, finding issues, suggesting solutions, implementing and monitoring the progress of the optimization project. Official meetings were followed up by emailing minutes of the meeting.

3.2 Overview:

SkyTelecom has a fuel distribution problem which is kind of a typical "travelling salelsman" problem. It has to distribute to over 8500 sites spread over an area of about 0.8 million square kilometers via third-party logistic service providers (3PLSPs) after buying from Fuel vendors (FV). Thus, the findings can also be generalized to other service or even manufacturing sectors. Also, the usefulness of the framework that we developed could be easily monitored because of the high costs being incurred with fraud as one of the reasons. SkyTelecom is regarded as the second largest consumer of fuel in Pakistan after the national airline. Management knew that fraud is occuring but it couldn't penalize or prosecute the guilty parties because of the lack of evidence.

In 2011 the total costs of logistics process were USD 54 million. Each year, these costs were rising by up to 20% due to inflation in country, world-wide fuel price increases, stronger demand for fuel due to major electricity shortages and natural and man-made disasters in the country. The fuel management process was carried out in the technical division, which was responsible for planning, deploying and operating the network. The technical division included 1,100 employees assigned to nine different departments, some of which had further sub-departments. They were in charge of various activities from engineering access, acquisitions, fuel logistics, procurement etc. Management was very wary of the efficiency and costs of the process carried out by the fuel logistics (FL) team so they appointed the quality assurance and business intelligence (QA and BI) department as the project team for this purpose.

At the start of the project, the process of FL was not described in any formal document. The project team had to conduct a series of interviews to seek the visibility required for drawing process-maps. It became apparent that the entire fueling process was managed in multiple spreadsheets that were saved in different locations. When someone went on leave, the data was unavailable. The FL team had third-party logistic service providers (3PLSPs) to fill fuel at the sites after picking it up from fuel vendors (gas stations). Data from different 3PLSPs and fuel vendors from five regions of the country was sent by email in five different formats. Such personal emails made this process unnecessarily human-dependent. This human reliance was also the cause of errors in reporting as well as in fuel allocations worth millions of dollars.

Further detailed interviews with the FL team revealed corruption and theft issues in fuel management by 3PLSPs and fuel vendors. Organized crime used methods like tampered fuel tanks and the use of bricks to elevate fuel levels. These issues resulted in a huge loss in liters/dollars of fuel for SkyTelecom. The approach developed in the second section was carried out by developing a tool called $OpEx, which was developed by the company's own employees. Some processes were automated using IT for efficient data collection; others were redesigned for speed and efficiency. In the FL process, previously only two data sources had been used i.e. 3PLSPS and fuel vendors. The proposed optimization also needed ten additional sources from various other departments (e.g. security and administration divisions). Although some of the sources were in fact redundant or even wrong, this increase in data complexity was important for effective monitoring. Each data stream was in a different format and these departments worked in isolation.

The tool was ready in September 2011 after incorporating the management and user requirements from the pilot test. The regional teams were trained in October 2011. Ideas for improvements were gathered from users and incorporated in November 2011. The project team trained additional users in December 2011. Teams started to use the $OpEx tool in January 2012. Optimizations in the process including preventive measures to deter fraud resulted in a total cost reduction of 20% per year, i.e. USD 32 million over 3 years. The efforts were recognized and rewarded by users and management on various occasions: "*Great initiative by the QA and BI Team*", the CEO said at the final demonstration. We will now go in to the detailed presentation of the design and implementation of the logistics fraud detection approach implemented in the form of $OpEx tool.

4. DESIGN AND IMPLEMENTATION OF LOGISTICS FRAUD DETECTION APPROACH

Fraud at SkyTelecom not only caused a financial loss to the company but also led to intentional incorrectness in the data. In the report shared with the project team by the FL team in 2011, the cost of fraud was estimated at USD 1 million. To show an example of such inaccuracies in the data, the monthly report for August 2010 showed that fuel vendors had billed SkyTelecom for 5.9 million liters, while the 3PLSPS reported 5.6 million liters of fuel filled at the sites. This deficit of 0.3 million liters indicated a fraud worth USD 300,000 in just one month for which no one could be found accountable.

4.1 Fraud as a Human Factor

Once the project team looked at the initially acquired data, it was clear that high fuel consuming sites were involved in fraudulent activities. The FL manager mentioned in the interview that the 3PLSPS, security and administration employees, and fuel vendors had all been involved in fraudulent activities. Reported incidences like tampered fuel meters, the use of bricks to elevate fuel levels and wrong site locations etc. created further inaccuracies in the data. Further, emergency refueling had to be arranged for sites with inaccurate fuel level data, resulting in additional costs.

Deliberate inaccuracies motivated by fraud were also introduced by fuel vendors, thus adding to the list of problems in the optimization data. Fuel gauges at the fuel vendors' gas stations were mostly found inaccurate when tested by the FL team. In the same monthly report mentioned above, an inaccuracy of even one milliliter in every single liter accounted for 5,900 liters of fuel loss/inaccuracy per month. Measures were introduced to address this problem. They included the effective collection and monitoring of data using BI and process redesign following the proposed framework. Details of the steps taken are beyond the scope of this paper. Lee and Fargher's (2012) findings that fraud is common when a lot of inventory is at stake and a physical monitoring body is lacking were also validated by this case study. We will now analyze the previous FL process and it's weaknesses to see how it was overcome using the logistical fraud approach we have developed.

4.2 Lack of correlation of fuel consumed against electricity consumption for monitoring

Fuel is used as a backup when electricity is not available. If a site has a high electricity bill then it should not have a high fuel bill. This correlation helps in establishing corruption and fraud on that site. This important correlation to catch corruption and fraud was figured out by the author of this research. In order to make this correlation, it was required that the fuel bill is available along with electricity bill of each site in one place.

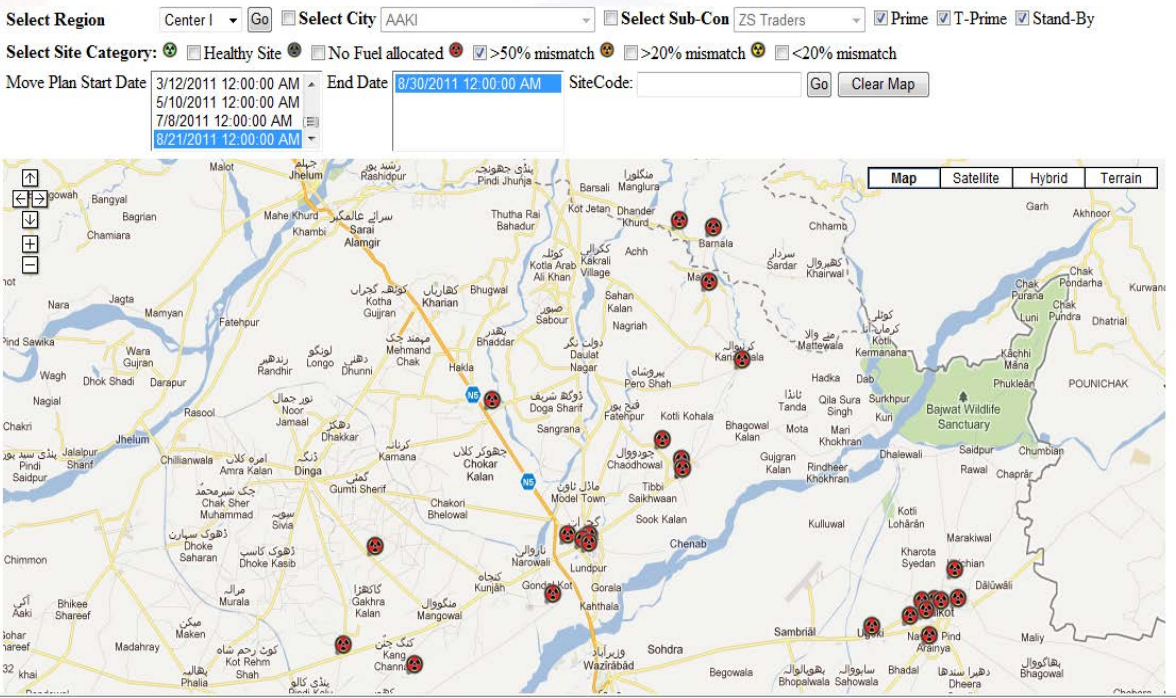

Figure 3 shows high dollar consumption sites on a map in red color. Such filters help the FL manager find corruption/fraud in a particular area using Spatial Intelligence.

4.3 Automated Site-Wise Fuel Consumption Comparison and Analysis – Spatial Intelligence

Previously, FL team used to manually generate a report, which analyzed fuel supplied to SkyTelecom by fuel pumps vs 3rd party fuel logistics contractors employed by SkyTelecom who were responsible for distribution of fuel to sites. The tool generated this report automatically while previously this was done manually and took 10 days for 5 persons with one month of data collection. This report was of special interest to the management as it showed how much SkyTelecom spent on fuel. There was usually a difference in number of litres supplied with respect to number of litres put in by the 3PLSPs, which showed corruption at their end. It allowed the comparison of fuel but in order to get them prosecuted, evidence was required in proper historical data statistics. It was previously not possible to manually process so many sites which had theft issues. The manual report highlighted the theft if there was a difference. FL team now instead of making this report works on investigating the theft prone sites. This allowed preventive and corrective measures. All this was displayed on a geographical map as shown in Figure 3. Spatial Intelligence on the map was one of a kind, which also helped the FL managers assess the power outages in one area with similar power outages from one electricity grid station to estimate fuel for that site.

4.4 Electricity and Fuel Consumption Analysis

This comparison was not previously done, as it required two separate departments communicating with each other who were working in isolation. The tool was now capable of comparing sites, which were high electricity consuming sites as well as high fuel comsumption. This helped in isolating corruption/theft/fraud of high fuel consuming like in graph in Figure 4 upper graph. In Figure 4 lower graph, South and Center 1 region have the same electricity consumption bills as the other regions but their fuel comsumption is too high. This shows that they are consuming more fuel then required. Thus, isolating possible theft, corruption and fraud.

4.5 Re-designing the Electricity Bill Payment Process:

Use of Sky Telecom's Mobile Commerce to pay Electric Power bills saving 3rd Party Vendor Charges in turn immediately saving 0.5 million USD that year. This modification shows that in logistics, optimization of simple things that do not require complicated models and techniques, can bring in significant benefits.

4.6 Re-designing and Managing the Fuel Logistics process for multiple Input Data:

The logistics process had previously two input data streams, which were: 1) 3PLSPs who reported the amount of fuel they filled in the sites. 2) FVs. The FL team previously compared the above two data streams manually. A mismatch and deficit of fuel used to occur for which noone could be found accountable. So more data was needed. To reduce such deficits which would mean either the fuel provider company is corrupt or the contractors are corrupt, two more streams were added to reduce theft and fraud.

First stream was a new SMS portal service in which the security personnel on site SMS/text a short code stating the number of litres of fuel filled in by the 3rd party contractor. This information was automatically fed to the tool. This number was compared to the above two data streams and identification of fraudulent party was now possible because the security personnel personally witnessed the fuel filling process on sites and may not be involved in fraud.

Second stream was later formed as a result of process modification required in case the security personal is also involved in theft/fraud. To minimize these issues companies opt to use hotlines and common procedures to communicate (Oldendorf, 2007; Calderon-Cuadrado, 2009 ; Lee and Fargher, 2012). In the new process, a SkyTelecom employee, who was part of administration department, now accompanied the contractor while they were putting fuel in on sites. This employee was required to call the fuel logistics telephone hotline, which was developed for this purpose, and report his comments on current condition of the site, along with number of litres of fuel being put in by the contractor.

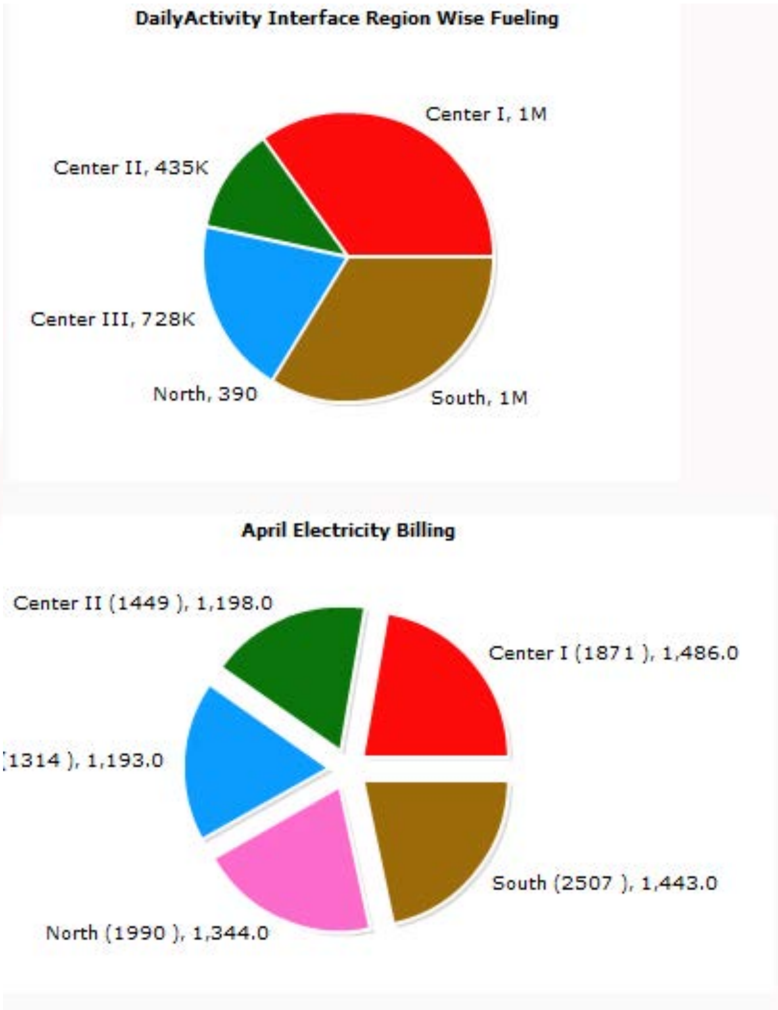

Figure 4: Comparison of electricity and bills of each region.

All these four input data streams shown in Figure 5 were now compared against each other and mismatches were highlighted and sent to the concerned FL area manager. Although these additional data streams increased data complexity they were easily handled by the BI tool. This allowed minimizing the probability of theft, fraud and corruption by the contractor or fuel provider company or the security personnel or administration employees. Everyone was now aware of the added measures and data analysis capability of the new processes in place.

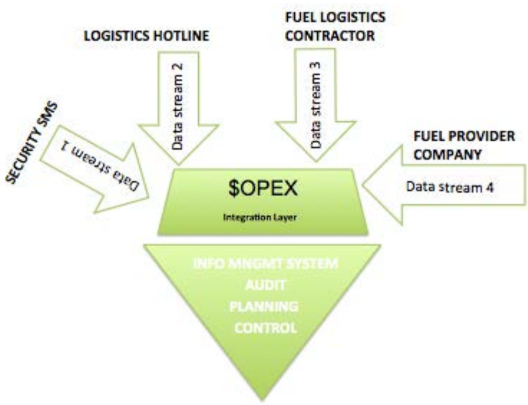

Figure 5: Data streams after re-designing the fuel logistics process for prevention of theft and fraud.

5. CONCLUSION

This research tried to answer the role of humans in data acquisition for logistics optimization and data acquisition when they are involved in fraud. For this purpose, we started with a review of literature to show human factors in logistics and supply chain context and the gaps in the literature. We developed an approach using BI and BPM that may help in detecting fraud. This approach was later implemented in a two year long case study. The case specific design and implementation aspect was analyzed in detail so that practitioners can use it as an example for solution. One of the major limitations of this research is that it only considers a single case study. Future work may be focused on using this approach for fraud detection in multiple cases and in other fields like finance fraud detection. Development of validated survey instrument will also be useful to validate these findings.

Humans may have different motives for not sharing data for logistics optimization; involvement of fraud can be a motive for that. To ensure, that humans cooperate, a business intelligence approach mixed with business process management approach can be designed, developed and implemented using IT. This approach proved helpful in the case study in not only detecting fraud but also in ensuring that it doesn't happen again

This approach is simple to understand and is implementable and doesnt reqiure complex mathematics models used in fraud detection and logistics optimization. It is based on redundant data streams coupled with better processes. Although this redundancy might make the data look slightly complex but nothing that a IT/BI system cannot handle. This redundnacy that can include wrong inputs too proves helpful in catching fraud as it is better to have wrong data than not having any data at all. It will give a chance to investigate what went wrong. Also, context accumulating systems let disagreement coexist; otherwise new emerging trends and weak signal will never have a chance to add up to anything which is very important to catch fraud.

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Intelligence Creation of Internationalization Process: The Case of High-Tech Entrepreneurial Firms

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Abstract

When firms decide to internationalize, intelligence is required. Internationalization intelligence reflects the act of gathering information and resources leading firms into gaining knowledge on foreign markets, thus creating more opportunities for international ventures. Having internationalization intelligence on business, technology and cultural add values to the product development, while network and experiential intelligence generate entrepreneurial actions that facilitate firms gain faster foreign entry. Although many internationalization theories and models have evolved, due to the complexity of the issue, their application on the internationalization process and intelligence creation is still a challenge. Applying Internationalization process models, Network approach and International New Ventures, this paper investigates intelligence creation of the internationalization process of high-tech entrepreneurial firms. It aims to identify the sources and types of internationalization intelligence, and how they relate to the high-tech entrepreneurial firms internationalization process and pattern. This study employed multiple-case research. The findings revealed that business intelligence allows high-tech entrepreneurial firms to recognize markets opportunities; technology intelligence facilitates products development; while experiential and cultural intelligence permit entrepreneurial and innovative behavior. This indicates that myriad sources of intelligence support the high-tech entrepreneurial firms internationalization process. Nonetheless, the entrepreneurs' networking efforts, their capabilities and abilities serve as an enabler for the high-tech entrepreneurial firms to speed up their firms' ventures. The integration of various internationalization theory and model deepens understanding on the internationalization process, enabling the identification of emergent internationalization intelligence with the Born-Global characteristics. This results in the development of propositions and a new model. This study provides important implications to internationalization theory, managerial, and policy-makings.

Keywords: Internationalization process, Intelligence creation, High-tech entrepreneurial firms, Networking, International New Ventures, Born-Global pattern.

INTRODUCTION

In the process of firms' internationalization, intelligence on foreign markets is required. Intelligence can be illustrated as "*individuals' abilities to understand complex ideas, to adapt effectively to the world around them, to learn from experience, to engage in a various forms of reasoning and to overcome a wide range of obstacles*" (Baron & Shane 2008 p.80). In regard to internationalization process of small medium-sized firms, one recent study (Che Senik & Md Sham 2011) described 'internationalization intelligence' as how information and knowledge on international opportunities is identified, gathered, organized and assessed. It is argued that reliable intelligence on targeted foreign markets enable the small high-tech firms to (among others) recognize more international opportunities, be proactive and sensible toward international operations, and accelerate the internationalization process. Relevant intelligence, for examples on business, technology, product, social, and markets can substantially assist the firms strategize their international ventures by speeding up the process of product development, internationalization and firm growth (Viitanen & Pirttimäki 2006; Amabile et. al., 2013). All these facets are consistent with the criteria of small high-tech firms, the knowledge-based firms that pursuing creative process of discovering and exploiting opportunities in foreign markets from inception (Bell, McNaughton & Young 2001; Knight & Cavusgil 2005; Madsen & Servais 1997; Prashantham & Berry 2004).

A review of the internationalization literature reveals that diverse issues on internationalization have been discussed (i.e., Mejri & Umemoto 2010; Zahra, Korri, & Yu 2005). However, the subject concerning the internationalization process and intelligence creation within the born-global small high-tech firms in emerging markets remains unexplored. In fact the empirical findings are still fragmented which mainly involve larger firms in more advanced countries. Therefore, there is a need to integrate those issues in the context of small high-tech firms in one emerging market, Malaysia.

Malaysia is in the process of becoming a high-income and knowledge-based country by the year 2020. The country is developing the capacity of small to medium-sized enterprises (SMEs) defined as "*an enterprise with full-time employees not exceeding 150 or with annual sales turnover not exceeding RM25 million*" (NSDC, 2005, p.5-6) to become the key sector in building the nation's economy. The sector represents 99% of total business establishments, accounting for 32% of national GDP, 59% of employment and 19% of exports (http://www.oecd.org/dev/asia-pacific/Malaysia.pdf). The sectors are divided into services (86.6%), manufacturing (7.2%), and agriculture (6.2%) (http://www.smecorp.gov.my). The SMEs in the high-tech industry are classified under the manufacturing sector contributing to 26.6% of overall GDP and 30.4% of value-added, and are more apparent in electrical and electronics (E&E) (40%), textiles and apparels (23.4%), metal and non-metallic products (18%), and food and beverages (15%) subsectors (NSDC, Malaysia 2011).

As an emerging market, Malaysia is leveraging on high-tech industries (Bernama 2013) as well as planning to become the global outsourcing hub for high-tech manufacturing (MIDA 2012). To ensure that Malaysia remains the global leader in the high-tech industry especially for the E&E products (40% of Malaysia total exports) Malaysian Industry Government Group for High Technology (MIGHT) was established in 1993 to assist with strategic technology inputs for industry and government, nurture technology-based enterprises and entrepreneurship, and prepare knowledge workers relevant to strategic and high technology industry needs (http://www.meti.go.jp/english/apec/apec-isti/IST/abridge/myz/myztec00.htm). Thus, the SME entrepreneurs in Malaysia especially engineer-entrepreneurs are encouraged to promote products on technical/knowledge-based industries as they are equipped with technical knowledge, as well as their engagement with appropriate people due to their past industrial working experience (www.pmo.gov.my/dokumenattached/NEM_Report_I.pdf), enabling them to acquire intelligence on business and products opportunities, and the advances of technology. This prepares engineer-entrepreneurs to be innovative and creative in building their capabilities through product and technology developments, permitting them faster entry into international operations by becoming born-global firms.

Since the subject on the small high-tech entrepreneurial firms' internationalization process is still an understudied phenomenon in emerging economies, coupled with lacking of empirical evidence and complexity of the issue, this research uses case study methodology (Yin, 2003) based on in-depth interviews of three Malaysian small high-tech entrepreneurial firms. The purpose of this article is to understand the intelligence creation in the internationalization process of small high-tech entrepreneurial firms. The objectives are 1) to identify the characteristics and dimensions of internationalization of small high-tech born-global firms in an emerging market, 2) to identify the types of internationalization intelligence, and 3) to understand how patterns of born-global affect the process of intelligence creation in internationalizing small high-tech born-global firms.

LITERATURE REVIEW

The Internationalization of Small High-Tech Firms

The firm internationalization is a complex process. Although there have been several theories and models on internationalization, there is none yet that can adequately describe the phenomena (Etemad & Wright 1999) thus the insights must be drawn from several perspectives ((Mejri & Umemoto 2010). In understanding the internationalization of small high-tech born-global firms, previous literature has emphasized on four main approaches: the international entrepreneurship, the international new ventures (INV) or born global, the network approach, and the knowledge-based models.

The international entrepreneurship, defined as "*the process of creatively discovering and exploiting opportunities that lie outside a firm's domestic markets in the pursuit of competitive advantage*" (Zahra & George 2002) is a new field of multi-disciplinary enquiry that is attracting the interest of scholars from various disciplines. The international entrepreneurship highlights the importance of opportunity recognition, discovery and exploitation as a distinguishing characteristic of entrepreneurship (Shane & Venkataraman 2000). Further, McDougall and Oviatt (2000) describe that the international entrepreneurship domains may include cooperative alliances, corporate entrepreneurship, economic development activities, entrepreneur characteristics and motivations, exporting and other market entry modes, new ventures, transitioning economies, and venture financing. Because of these characteristics, Dimitratos and Jones (2005) argued that in the early development of the international entrepreneurship field, many small businesses internationalized at a faster pace, thus, the concept of INV or also known as Born-global pattern emerged.

The INV or Born-global emerged due to evidence that many firms avoid incremental patterns in their internationalization process and claims that firms go into international markets right from their birth (Bell 1995). Knowledge on the products and markets acquired from the internet (Gabrielsson 2005), as well as the change in mindset of entrepreneurs by becoming more entrepreneurial in their behavior such as innovative, proactive, and risk-seeking (Lumpkin & Dess 1996) would eventually shape the pattern of their internationalization (Luostarinen & Gabrielsson 2004). The network approach emphasizes on the firms' strategic links with others (Johnsen & Johnsen 1999), while the international new ventures involves firms internationalize from inception or at a faster speed by building competitive advantages (Oviatt & McDougall 1994).

Previous studies have related firm internationalization mainly on the multinational corporations and the process of internationalization, yet it is argued that internationalization can be the strategic actions of small businesses avoiding incremental process and penetrating into international markets at a faster rate (Mejri & Umemoto 2010). For the small businesses targeting on high-tech and knowledge-based products, the internationalization arrangement is always the key goal of the firms because they usually engage with products that are niche and demand by exclusive clients/customers, thus eventually they would internationalize from inception (Litvak 1990).

Born-Global Patterns

Born-global is defined as firms that "*from inception, seek to derive significant competitive advantage from the use of the resources and sales of outputs to multiple countries*" (Oviatt & McDougall 1994, p.49). Born-global carries other names such as 'international new ventures', 'committed internationalists', and internationally focused 'knowledge-intensive' firms (see (Bell 1995; Jones 1999). Born-global is also described as firms that start their globalization immediately after establishment without any prior domestic operations or simultaneously with domestic business operations (Luostarinen & Gabrielsson 2004), or they have been well established in domestic markets, but due to abrupt occurrence, they change their strategic direction to a faster and committed internationalization (Bell et al., 2001). Born-global can occur within three years of establishment (Knight & Cavusgil 2004), within six years (Oviatt & McDougall 1994), or even been extended to seven (Jolly, et al., 1992) and eight years (McDougall et al., 1994). Regardless of any description given, one distinguishing attribute of born-globals is a strong business network at both domestic and international levels (Oviatt & McDougall 1995).

Intelligence Creation for Internationalization

In general, intelligence includes information on everyday activities, personal, applied information, and public (Choo 1998). When we relate internationalization, intelligence, and entrepreneurship in the context of small high-tech born-global firms, it means how information and knowledge is acquired (such as identified, gathered, organized and assessed) in order to pursue entrepreneurial international opportunities (Che Senik & Md Sham 2011). The internationalization process of SMEFs has becoming an important issue to academic researchers (Bell, Crick & Young 2004; Shrader 2001; Zucchella et al., 2007). The SMEFs are firms equipped with intellectual nature, well-qualified employees form the major part of the workforce, and technology advanced where knowledge is being the firm's primary asset and source of competitive advantage (Robertson & Hammersley 2000). This indicates that environmental issues are needed in acquiring business and technology intelligence.

Business intelligence is still an infant concept, argued to be a poorly defined term, and the definitions have not reached consensus yet (Popovič et al., 2010). It is a set of business information and business analyses within the context of key business processes that lead to decisions and actions (Williams & Williams 2007). In regard to SME internationalization, we refer business intelligence processes as techniques or tools to getting information on business opportunities to support the making of faster and better business decisions Hannula & Pirttimäki 2003; Zucchella et al., 2007; Viitanen & Pirttimäki 2006). It relates to acquiring information on what, who, when, where and how, comprising variety types of intelligence, including customer, competitor, market, technology, product and environment (Tyson 1986).

Business intelligence process aims to: 1) produce general information or knowledge; 2) create organization-specific intelligence solutions, which enable more efficient utilization of information and to wide intelligence of the business environment; and 3) help an organization to notice their own strengths and weakness in comparison to competitors (Pollard 1999). Having access to relevant business intelligence, an SME can avoid surprises, identify threats and opportunities, decrease reaction time, predict the competition, protect intellectual capital, and understand where an organization is vulnerable (Thomas 2001), and eventually improve firms' performance by leveraging information assets within key business processes (William et al., 2007). Technology intelligence on the other hand, is a method to gather information relevant to product development, innovation, and technological trends that most likely involves R&D activities (Lichtenthaler 2003; Liao 2005).

However, it has been argued that acquiring business and technology intelligence requires people to interpret the meaning and significance of information, and to act upon the acquired knowledge (English 2005). We support this notion; thus we propose that the entrepreneurs must seek for business and technology intelligence activities to enable them to speed up internationalization process. We also argue that the process of acquiring, gathering, and analyzing information involves external environment as well as within the company itself. Evidently, the existence of business and technology intelligence has significantly contributed to speeding up the process of internationalization of small knowledge-intensive firms (Bell et al., 2004).

METHODS

Thomas (2004) argues what governs the selection of a relevant methods is the research problems and research questions. In understanding how intelligence is created in the internationalization process of small high-tech born-global firms, a qualitative research methodology was selected if the subject is understudied (Laanti, Gabrielsson & Gabrielsson 2007), it lacks of empirical evidence (Andersen & Skaates 2004; Welch & Welch 2004) and the issue is complex (Coviello McAuley 1999; Zalan et al., 2004). In gathering data, we adhered to the guidelines suggested by Eisenhardt (1989) and Yin (2003) employing multiple-case study methodology based on in-depth interviews with three Malaysian small high-tech born-global firms. Qualitative data allow researchers to find richer explanations and deeper insights into a phenomenon (Miles & Huberman 1984).

To identify the small high-tech entrepreneurial firms, the Federation of Malaysian Manufacturers (FMM) directories as well as the companies' websites were referred. The selected companies were chosen based on these characteristics: 1) hired less than 300 employees with paid-up capital of more than Ringgit Malaysia (RM49) million which is equivalent to USD 17 million (Hashim & Wafa 2002); 2) owned by the Malaysian entrepreneurs; 3) engaged in outward operations; 4) produced high-tech manufacturing products in Malaysia; 5) entered foreign markets in the early of firm establishment; and 6) located in the Small Medium Industry (SMI) zones. Guided the characteristics, three small high-tech born-global firms were selected disguised as *TeleTech, SuperEnergy* and *SwitchCo*. The interviews were carried out in March and April 2010. The interview protocols covered issues on:

1. The firms' internationalization process (i.e. first time involvement, entry mode, market selection and coverage);
2. How the firm obtains intelligence on internationalization (i.e. sources, informants);
3. What kind of intelligence that the firm needs to strategize its international operations; and
4. The impact that the sources of intelligence make on the firm's internationalization process.

All the interviews were recorded and transcribed prior to the case analysis. After the analysis, case summaries were sent to the respective respondents for confirmation. These procedures are strongly recommended in the qualitative research to warrant for research validity and reliability (eg. Merriam 2002; Miles & Huberman 1994; Silverman 2010). The analysis was conducted specifically to identify patterns of internationalization, sources and types of internationalization intelligence, and its impact to their firms' internationalization.

FINDINGS

Firms Characteristics

The characteristics of the three small high-tech entrepreneurial firms as well as their founders, disguised as, *SwitchCo, SuperEnergy,* and *TeleTech* are presented in Table 1.

As shown in Table I, two companies were set up in the 90s, except for *SwitchCo*, that was established in late 70s. *TeleTech* and *SuperEnergy* were owned by the Malaysian and international partners, while *SwitchCo* was a family-owned firm. All three were located in different designated areas for small medium industry (SMI). *TeleTech* had 60 employees with annual sale of USD 3-7 million; *SuperEnergy* employed 30 workers, and annual sale of USD 8-10 million; and *SwitchCo* had 80 employees with sale of USD 2-5 million annually. Both founders of *TeleTech* and *SuperEnergy* graduated in Mechanical Engineering from overseas, while the founder of *SwitchCo* was an electrical engineer graduated from a local university. With their age ranging from late 50s to early 60s, they had broad working experience as well as networks with people at domestic and international levels.

Table 1: Characteristics of the firms and their founders

Characteristics	*SwitchCo*	*SuperEnergy*	*TeleTech*
Year of Establishment	1978	1992	1996
Ownership	Family-owned company (100% ownership)	International partnership - Malaysia (70%), India (30%)	International partnership - Malaysia (80%), others (20%)
Location, size and annual sale	Located in a designated industrial area in Kinrara, Malaysia Employees: 80 workers Annual sale: USD 2-5 million	Located in a designated industrial area in Shah Alam, Malaysia Employees: 60 workers Annual sale: USD 3-7 million	Located in a designated industrial area in Puchong, Malaysia Employees: 30 workers Annual sale: USD 8-10 million
Type of manufactured product	Switch gear and switch box	Cable joints, Power cable, and telecommunication accessories	Electrical energy products & services, and medium voltage switchgears
Founder's Academic	Electrical engineering	Mechanical Engineer Masters in Engineering	Mechanical Engineer
Qualification	Local graduate	Overseas graduate	Overseas graduate
Founder's Working	Used to work with a multinational firm.	Used to work with the state power company.	Used to work with a Malaysian Teletech a MNC.
Experience	About 40 years of working experience	About 40 years of working experience	About 35 years of working experience
*Founder's Age**	Early 60s	Early 60s	Late 50s

NB: * The founder's age as of 2010

Process of Internationalization Intelligence Creation

This section provides a brief description of analysis on the process of internationalization intelligence creation of each case.

SwitchCo was a pioneer in switches gear and box industry, operating more than three decades. The company was co-owners with two local partners, but they pulled out, leaving this chemical-engineer-Chinese-ethnic founder to manage the family business. Back then, there were only two local players, later, more competitors emerged, pushing the company to venture out to survive. This happened after the economic downturn that affected the Southeast Asia in the late 1990s. Lack of resources and expertise especially on technology was the main reason why the firm delayed to go international. Since *SwitchCo* was unable to internationalize its products, it strengthened its domestic position by setting a low pricing strategy enabling the firm to monopolize the local industry. *SwitchCo* has built up good image and reputation, resulting in many enquiries from foreign customers and other business associates. The exporting started with being a supplier to international contractors from Japan, introduced by other suppliers. The Japanese contractors preferred to purchase SwitchCo's products, (compared to the Japanese's) because of cheaper prices. In recent strategy, the company has signed up a licensing agreement with one global company to manufacture products in Malaysia. This strategy provides a broader opportunity for the company to penetrate into overseas markets, as well as promotes its brand for global markets.

SuperEnergy began its entrepreneurship program with trading mode supplying electrical equipment to Tenaga National Berhad (TNB), a national power provider. In the beginning of its operation, the company used the TNB branding, technologies and support. *SuperEnergy* first built its international relations with a manufacturer in Singapore. The founder who was an ex-TNB top management and ex-engineer of a large electrical multinational corporation (MNC) based in Zurich established *SuperEnergy* and ventured out within a year. This happened when his ex-colleague from the MNC allowed him to utilize their technology. *SuperEnergy* then began fabricating its products using technology from Europe enabling the firm to penetrate European market. Introduced by a Sudanese business associate, later became its partner, *SuperEnergy* has expanded to South Africa by utilizing the new partner's technology. The founder's connection with the MNCs allows *SuperEnergy* to be linked to 150 companies all over the world. The partnership, networking, and collaboration with big construction companies in Malaysia, Middle East, Europe, and Africa together with its technical expertise as well as managerial strengths have become core competencies for *SuperEnergy*. These internationalization opportunities have enabled *SuperEnergy* to establish its own world brand.

TeleTech started as a vendor to Tenaga National Berhad (TNB), the sole power provider for Malaysia. It ventured out after three years of firm's establishment. The firm's awareness of the products began with the founder's previous work place where he dealt with many suppliers, local and international. From extensive travelling, joining exhibitions, attending workshops and seminars, he has created networking with many, enabling him to know more about other products. *TeleTech* manufactures plastic based products, utilizing a reverse cycle process, a cross-linking between chemical bonding process and radiation method process. This technology is unique, developed by a US company, in which the Indian partner was working with. *TeleTech* became the first firm to bring the process into Malaysia. However, some of the products that the firm manufactured could not use chemical process instead radiation has to be applied. Thus, *TeleTech* had to send those products to be manufactured in Netherland. Today, the company is collaborating with Malaysia Institute of Nuclear Technology (MINT) to conduct the radiation process for its products. *TeleTech* has received Certificate of Acceptance by the Malaysian National Electricity Board as well as international bodies permitting it to sell its products to local as well as foreign markets.

Types of Internationalization Intelligence

Based on the above analysis on the internationalization intelligence creation of each firm, we found that the intelligence created by the firms can be divided into two types: business intelligence and technical intelligence. The analysis on the **business intelligence** revealed several emergent themes; product, markets, competitors, customers, and environmental, which support previous literature (Tyson, 1986). The study also identified some *new findings in regard to the business intelligence constructs which are opportunities, pricing, local and international clients and suppliers, policy, rules & regulations, and international relations*.

All firms share six common factors of what they sought for in the business intelligence such as opportunities, products, local and international markets, competitors, customer, and environmental. These factors are crucial business intelligence for the internationalization of the three small high-tech born-global firms. Meanwhile, both *SuperEnergy* and *TeleTech* agree that attaining relevant information on local and international suppliers add up values to their business intelligence. On the other hand, *SuperEnergy* and *SwitchCo agree* that creating international relations is important for getting business intelligence. The finding also reveals that although *SwitchCo* operating at international level very much later than the other two firms, it emphasizes on getting information on pricing as its key business intelligence. As mentioned by the CEO of *SwitchCo*:

> *"…at that time, since we were unable to internationalize the products, we learned how the competitors set up their prices…based on that we decided to set a low pricing strategy, so that we could monopolize the local industry."*

A unique factor that enables *TeleTech* to go international at a faster rate is its knowledge on policies, rules, and regulations of the countries, as mentioned by its founder:

> "*I believe that the information on the policies, rules, and regulations of the countries is very important…as for me I gain these information from my links*

> *with others…for example my Indian partner who introduced me to the US company has all the information regarding the policies and regulations on foreign operation."*

Meanwhile, the analysis on the **technical intelligence** also revealed several emergent themes. The themes found in this study are technological, product development, innovation, and R&D, supported previous literature (Lichtenthaler, 2003; Liao, 2005). *The study also identified some new findings in regard to the technical intelligence constructs including international certification, brand, latest trend, and technical pioneer*. All firms believe that technological and product developments are among the 'must' factors in order to go international. But what make a different that speed up the pace for the firm to go international is keeping up with the latest trend and becoming a pioneer in the technology. This is supported by *TeleTech:*

> *"In high-tech industry, to penetrate oversea markets, you have to make a difference; your company has to adopt the latest trend in technology. In my case, I managed to utilize the reverse cycle process, which is the first technology being applied in Malaysia."*

The analysis of the types of intelligence created for internationalization process of each firm is presented in Table 2.

Table 2: Types of Intelligence of Internationalization Process

Firm	**Types of Internationalization Intelligence Created**	
	Business Intelligence	**Technical Intelligence**
SwitchCo	• Opportunities • Products • Local and international markets • Competitors • Customer • International relations • Environmental • Pricing	• Technological • Product development • Brand
SuperEnergy	• Opportunities • Products • Local and international markets • Competitors • Clients /Customer • International relations • Environmental • Local and international suppliers	• Technological • Product development • Brand • Innovation • R&D • International Certification
TeleTech	• Opportunities • Products • Local and international markets • Competitors • Customers • International relations • Environmental • Local and international suppliers	• Technological • Product development • Brand • Innovation • R&D • International Certification • Latest trend • Technical Pioneer

	• Policies, rules & regulations	

Born-Global Patterns of Internationalization

Regardless of the year of firm establishment, all the three firms first entered international markets almost at the same time, within 1996 to 1997. In identifying the type of Born-global pattern of each firm, several dimensions of internationalization were considered, as summarized in Table 3. The findings of the dimensions then facilitate us to ascertain of the type of the Born-global patterns for each firm.

Table 3: Dimensions of Internationalization

Dimensions	***SwitchCo***	***SuperEnergy***	***TeleTech***
Year of Establishment	1978	1992	1996
Foreign Entry Timing	First Time: 1996	First Time: 1997	First Time: 1996
**Pace of Internationalization*	About 18 years	Less than a year	About 3 years
Degree of Internationalization	23%	56%	40%
International Markets	Japan; Sri Lanka; Pakistan; Dubai; China; African countries; Sudan; Vietnam	Sudan; Cambodia; Indonesia China; Singapore; Middle-eastern countries	India, ASEAN Countries; Bangladesh; Middle Eastern countries
***Pattern*	Born-global again	Inception born-global	Rapid born-global

Legend: *the year of firm establishment minus the first time of foreign entry timing

SwitchCo began its first international activities after 18 years of establishment. This firm took a long time to internationalize due to the firm ownership. Although it had made an effort to penetrate overseas markets, it was unsuccesful, thus *SwitchCo* focused on the domestic market by creating a strong foundation locally. In addition, it is a family business firm (100% ownership) and lack of resources and capabilites to go at a faster rate of internationalization. However, once it carried on with its international operations, *SwitchCo* was able to penetrate into big markets such as Japan and China. Based on these findings, *SwitchCo* represented a traditional firm exhibiting a gradual pattern of internationalization by taking an extended period (18years) to begin its first international activities. Its breadth (10 countries) and depth (23% of degree of internationalization) characteristics depict the **born-again global pattern** as described by Bell et al. (2001). This pattern of internationalization is further described by Gabrielsson et al. (2008, p. 47) as “who attempt to internationalize, then turn to building up domestic support and later return to internationalization with great leaps, and a global vision”.

SuperEnergy started its foreign entry in the same year of its firm’s establishment. The founder who owns 80% of the firm’s share (refer to Table 1) took advantage of his acquaintances with international buyers and suppliers, as well as competitors and friends while working with one multinational firm. Due to the firm’s global strategy as well as the founder's international networks and collaborations from inception, *SuperEnergy* penetrated into close and distance markets almost simultaneously after creation (within year), and with high degree of internationalization (56%). The speed of *SuperEnergy* to internationalize shortly after the establishment through a high commitment of internationalization involving proximity and distance markets represent the theoretical definitions of **born-global pattern** (Knight and Cavusgil, 1996; Oviatt and McDougall, 1997; Luostarinen & Gabrielsson, 2004).

TeleTech was pulled into a number of international markets within four years of the firm's establishment with the collaboration of its Indian partner. *TeleTech* penetrated into ASEAN (Association of Southesat Asian Nations) countries such as Thailand, Brunei, Indonesia, and Vietnam. Apart from the ASEAN countries, *TeleTech* also entered Bangladesh and Middle-east countries including Qatar and Kuwait. Due to its depth of internationalization that represented by the degree of internationalization (40%), breadth by the number of countries (7 countries) all over the world, and speed by the number of years (within 3 years). Subscribing to Knight and Cavusgil's (2004) suggestion, these indicators are similar to the characteristics of the **rapid born-global pattern**.

DISCUSSION AND CONCLUSION

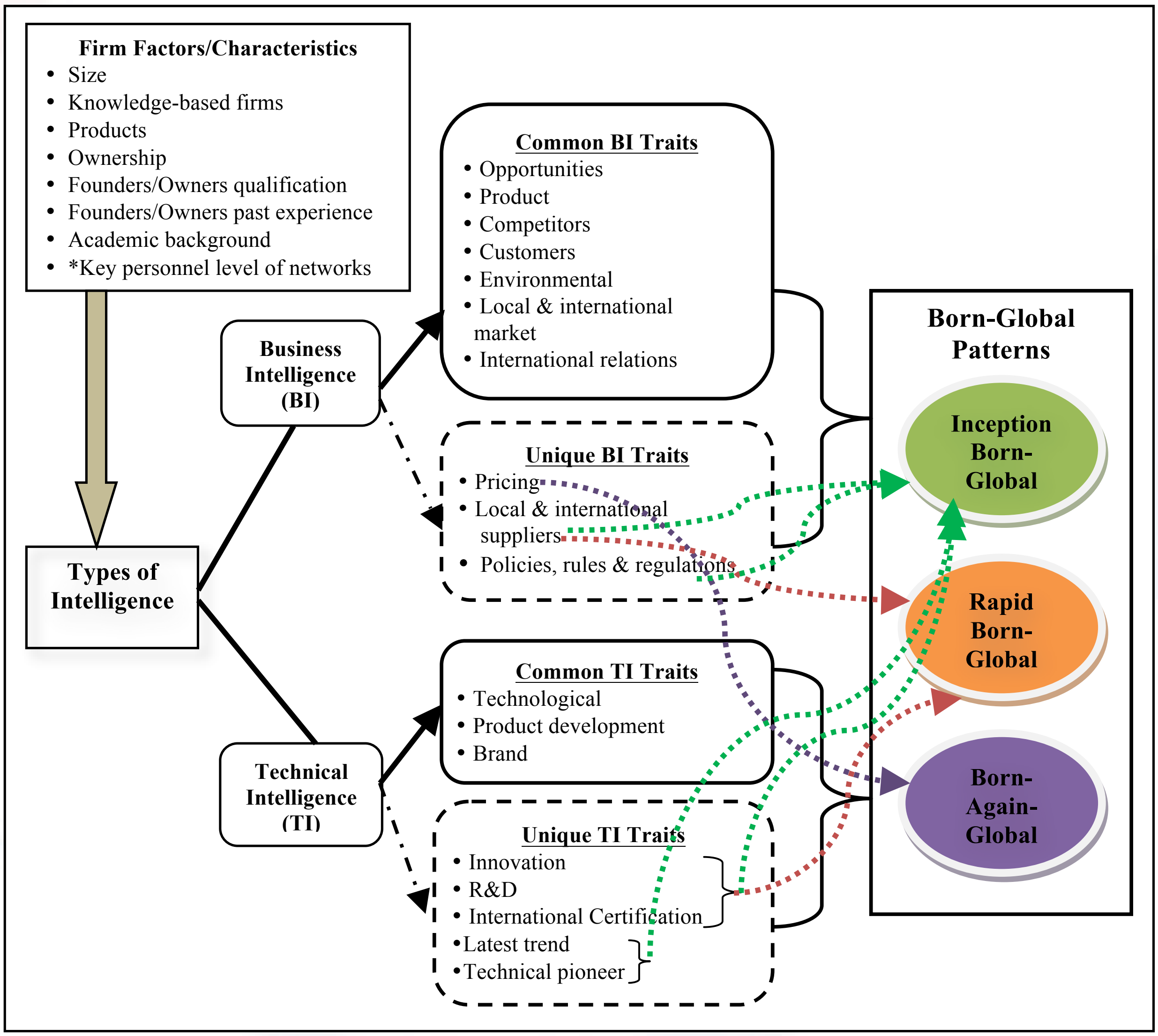
Our findings yield important insights into how small high-tech firms from an emerging market create intelligence in venturing out at faster pace via the Born-global patterns. From the findings of the three firms, we learnt that the small high-tech firms need to acquire, manage, evaluate, and exploit the internationalization intelligence to penetrate into foreign markets supporting the earlier findings by Che Senik et al., (2011). Figure 1 illustrates the intelligence creation of the internationalization of Born-global firms based on the study of three Malaysian small high-tech firms.

The process of internationalizing the small high-tech firms through the Born-global patterns requires intelligence in regards to business and technical that constitutes a number of internal and external factors. However, the types of intelligence created during the process of internationalization rely on the characteristics of the firms (i.e., ownership, founder's qualification, types of products, academic background). This study found that apart from the products that are high-tech based, the most imperative factor is the exploitation of wide-range of networks by the founders/owners or CEO/key personnel especially in building international relations. This is in line with previous studies that network relationships is significant to speed up the internationalization (Coviello & Munro, 1997; Ellis & Pectich, 2001; Johanson & Mattson, 1998).

Having technical knowledge such as information relevant to product development, innovation, and technological trends; is one of the essential traits that accelerate the process of internationalization (Liao 2005). These findings support the earlier study that suggests the firms to integrate both business intelligence and knowledge to help making decisions, to gain competitive advantages, and to increase firm's performance

(Herschel & Jones 2005). This study also found that both business and technical intelligence are crucial in determining the Born-global patterns for the small high-tech firms for emerging market, especially in regard to the speed, breadth, and depth of internationalization (Zahra, 2005; Zahra et al., 2000). In sum, the characteristics of the firms differentiate the types of intelligence created during the process of internationalization, which in turn determines the patterns of born-global such as Born-global, rapid Born-global or Born-global Again (Gabrielsson et al., 2008).

Figure 1: Internationalization Creation of Small High-Tech Born-global Firms



The findings obtained from the Malaysia small high-tech born global firms provide new insights on the internationalization via Born-global pattern. In theory, this study contributes to the Born-global approach through the discovery of the important traits of both business and technical intelligence. Moreover, this study detailed out the process of intelligence creations and matching them with the characteristics of the firms. This enables the prediction of the types of the Born-global pattern that suits the small high-tech firms from emerging markets.

In practical, the small high-tech firms have the capabilities to realize the born global pattern of internationalization due to the nature of their products. Due to the dynamic environment and the technological advancement, small high-tech firms should take advantage of the new technology, advance the trends and become the pioneer in the market. In addition, small high-tech firms are suggested to equip themselves with the new knowledge and become fast learners to adapt to the current demand and situations. In terms of building international relation, the owners or founders of the small high-tech firms must make sure that they maintain the relationships with their customers, suppliers, previous employers and etc.

Although this study confined to three small high-tech firms, the study make a contribution to the knowledge of intelligence creation and the born global pattern of the small high-tech firms in an emerging market. Because of the nature of today's business and the importance of the emerging markets to the world's economy, many firms are eying for the international ventures. Thus, future research should pursue more studies on intelligence creation in the context of born global which include other industries as they might contribute to different perspective in understanding intelligence creation in the born global internationalization process.

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Spirituality and Entrepreneurship from Islamic Perspective: An Analysis on the Effects on Entrepreneurial Opportunity Recognition.

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Abstract

Most studies in the area of entrepreneurship and spirituality are examined from a western perspective, which does not inadequately explain the wider range of religious commitments that are practiced. These studies typically exclude Islamic that can lead to important misunderstandings in a diverse culture where there are approximately 1.6 billion Muslim globally. This qualitative study explores the role of Islamic spirituality on the formation of entrepreneurial ventures. In-depth interviews were held with 15 Malay Muslim entrepreneurs on how they discover their entrepreneurial opportunities. The findings indicate that Malay Muslim entrepreneurs sourced for opportunity from problems that related to complying with the *Shari`ah* law where spirituality plays a role in justifying whether an opportunity is an attractive or worth pursuing opportunity.

Keywords: entrepreneurship, spirituality, opportunity, opportunity recognition

INTRODUCTION

Over the past decade, interest in the study of spirituality has been growing. Spirituality in the workplace as observed by Fornaciari and Lund Dean (2004) is more than a passing fad. Studies reported that spirituality can also positively affect organizational performance (Korac-Kakabadse and Korac-Kakabadse, 1997;Delbecq, 1999;Mitroff and Denton, 1999;Bierly et al., 2000). However, despite the growing interest in the study of spirituality, entrepreneurship remains to be an under researched theme in the area. According to Kauanui et al. (2008), "The study of spirituality as it relates to entrepreneurs and their work

organizations has, in large part, been unsuccessful in providing a cohesive explanation of the impact spiritual elements have on entrepreneur's decision to initiate and maintain a business venture" (p. 5). Furthermore, most scholarly works were conducted in the context of large corporate entities (Burack, 1999;Mitroff and Denton, 1999;Wagner-Marsh and Conley, 1999;Ashmos and Duchon, 2000).

There are approximately 1.6 billion Muslim globally (Goh, 2011) with wide ranging levels of religious commitment and practice, that can often lead to stereotyping and misunderstanding of the religion (Beekun and Badawi, 2005;Abuznaid, 2006) . This situation further complicates the explanation for the behaviors of Muslim entrepreneurs due to the complex relationship between religious values and cultural values (Fontaine, 2008). Moreover, studies on the diversity and forms of values and spirituality in organizations have been sparse (Karakas, 2008).

Malaysia is a multiracial country where religious beliefs profoundly impact the fabric of society. While other religions such as Buddhism, Hinduism, and Christianity are freely practiced, the strongest influence is from Islam and it is the official religion of the country (The Report: Malaysia 2008). Indeed, during his tenure as the fourth Prime Minister, Tun Dr. Mahathir Mohamed (1981-2003) introduced a programme, known as the 'Islamisation of Government and Society', with the objective to infuse Islamic principles across all individual and institutional levels of society (Tayeb, 1997;Singleton, 2007). As a result, Islamic principles have been progressively incorporated into the country's legislative and administrative systems over the last 20 years (Singleton, 2007). Alongside this 'Islamisation' process, Malaysia has seen an increase in entrepreneurial activity, with the country's GDP rising from 20.5% in 1980 to 32.5% in 2011 (www.statistics.gov.my). The SME sector has consistently outperformed the overall economy, with SMEs averaging 6.8% annual growth compared to the 4.9% average (Newsdesk, 2011).

The role of religion has been rarely examined at a macro-level in entrepreneurship (Dodd and Seaman, 1998). Most of the entrepreneurial literature has focused on how ventures are created and little attention was given to how entrepreneurial opportunities are created and discovered (Fiet, 1996; Shane, 2000). Considering the significant contributions of small and medium scale enterprises (SMEs) to the overall development of nation economies, it is important to explore the potential benefits entrepreneurs could derive from spirituality. Therefore, the purpose of this study is to identify the role of Islamic spirituality in the formation of entrepreneurial venture.

This study is guided by the following questions: How does spirituality shape the sourcing of entrepreneurial opportunities?

LITERATURE REVIEW

Spirituality Literature

Despite the growing interest and popularity of spirituality, scholars still cannot agree on a clear definition of spirituality. However, Gibbons (2000) proposes that,

defining the term spirituality based on its classification could help to overcome the definition problem. This author further categorizes spirituality into three types: secular, mystical and religious.

Gibbons (2000) explains that, secular spirituality includes earth-centered, nature-centered, and humanistic spiritualities. This type of spiritual belief system can involve pantheism or atheism. In terms of practice, it may include social and environmental activism. Examples of corporations that are associated with this type of spirituality are The Body Shop and Ben & Jerry's. The mystical spirituality is a sub-discipline of the religious spirituality such as Christianity, Judaism and Islam that includes most Eastern spiritualities. This author explains that, despite being excluded by many researchers in their studies, there are findings that report the links between this type of spirituality and organisational outcomes such as task effectiveness and lowered stress (Schmidt-Wilk et al., 1996). Gibbons's (2000) classification of spirituality also proposes a close link between religion and spirituality. According to this author, while spirituality is viewed as the broader term, religion is prevalent and "scripted" spiritual path.

Religion vs. Spirituality

The relationship between religion and spirituality is controversial. Some authors argue that religion and spirituality are not the same thing (Duchon and Plowman, 2005), while others state that these two terms are often used interchangeably (Karakas, 2008). Religion as observed by Pargament (1999) is often associated with being bad, "restricting and inhibiting human potential," while spirituality generally is viewed as good, "speaking to the greatest of human capacities." Some researchers describe religion as divisive (Cavanaugh, 1999), "create division rather than unity" (King-Kauanui et al., 2005) and can cause a particular company, faith, or even nation to feel more superior than another (Giacalone and Jurkiewicz, 2003). Spirituality on the other hand, is often described as "more tolerant of heterogeneity" (King-Kauanui et al., 2005), "a universal experience with fewer limitations" (Karakas, 2008).

Nonetheless, Pargament (1999) contends that this view is not justifiable historically. This author grounds his argument based on the work of James (1902), *"The varieties of religious experience"* who asserted that 'not all religion is bad, and not all spirituality is good in terms of its effects on mental health'. Garcia-Zamor (2003) makes an interesting point highlighting the inextricable spirituality-religion relationships. According to this author, "Spiritual and religious beliefs are not easily compartmentalized; they shape attitudes toward, and actions in, all aspects and spheres of daily life" (2003, p. 361). Hence, the complexity of the relationship between spirituality and religion also contributes to the common misunderstandings and stereotyping (Gibbons, 2000).

Islamic Spirituality

From an Islamic perspective, spirituality and religion are inseparable. Both share the same source of references, that are the *Qur`an* (the Holy book, which the Muslims believe containing the words of God), the *Hadith* (the sayings and

tradition of Prophet Muhammad), and the *Sunnah* (the practice, usages, utterances, actions, and tacit approvals of the Prophet Muhammad) (Nasr, 1991). That is why, in Islam, the discussion of spirituality must be accompanied by the concept of religion. Hence, we offer a brief explanation on the religion of Islam.

Islam literally means peace, submission and acceptance (Al-Qaradawi, 2010). In the context of religion, Badawi (2003) explains that Islam means " to achieve peace with Allah (God); with oneself (inner peace), and with the creation of Allah through submission to Allah, putting one's trust in Him and accepting His guidance and injunctions" (p. 139). Islam is more than just a religion. It is a way of living that comprises the creedal, spiritual, moral, social, educational, economic and political aspects of life (Badawi, 2003).

The concept of *Tawhid* is the cornerstone of Islam. It is basically to believe that "there is no God, but God (Allah)". Badawi (2003, p.141) discusses three prerequisite of *Tawhid* based on the Qur`an. According to this author, *Tawhid* involves: 1) to believe in the one and only true God (Allah) as the sole creator, sustainer, and cherisher of the universe; 2) to believe that Allah alone is worthy of worship and of unshared divine authority; and 3) to believe in the unity of the essence and attributes of Allah, which are all attributes of absolute perfection.

Man is created with the purpose to worship Allah. As Allah says in the *Qur`an*, (chapter 51, verse 56-58):

> I have only created Jinns and men, that they may serve Me. No sustenance do I require of them, nor do I require that they should feed Me. For Allah is He Who gives (all) Sustenance – Lord of Power – Steadfast (forever).

The concept of worship as described by Ibn Taymiyyah is "a comprehensive expression and encompasses all that is liked and approved by Allah in the form of words and deeds, whether hidden or manifest". Hence, apart from the obligatory form of worship such as praying, fasting, and performing the pilgrimage, the concept of worship is extended to also include all forms of noble character and all commendable human virtues, like truthfulness, honesty, faithfulness and other attributes of a cultivated character (Al-Qaradawi, 2010).

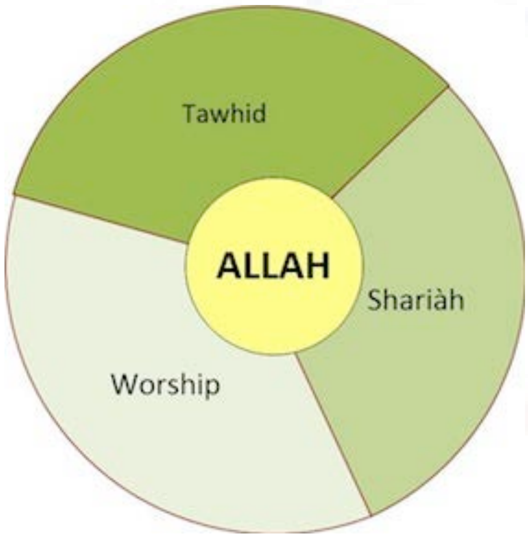
Muslims live their lives according to a set of rules known as the *Shari`ah*, which is derived from the Qur`an. Following the *Shari`ah* is the manifestation of the concept of *Tawhid*, which is the heart of Islam and what it means to be a Muslim. As the legal system of Islam that derives from the *Qur`an*, the key purpose of *Shari`ah* principles is for the good of humanity. The principles are intended to protect mankind from evil and to benefit them in all aspect of life, which include easing the business of day-to-day living. The benefits of Shari`ah are not limited to the individual, but also extended to everyone in the community – the rich and the poor, the rulers and the ruled, the men and the women – and even the entire humanity (Al-Qaradawi, 1999).

The interrelationship between the concept of spirituality and *Tawhid* are best explained by Nasr (1991):

> "Spirituality in Islam is inseparable from the awareness of the One, of Allah, and a life lived according to His Will. The principle of Unity (*at-Tawhid*) lies at the heart of the Islamic message and determines Islamic spirituality in all its multifarious dimensions and forms. Spirituality is *Tawhid* and the degree of spiritual attainment achieved by any human being is none other than the degree of his or her realization of *Tawhid*" (p. xv).

'Realization of *Tawhid*' implies worship, which is done as prescribed by the *Shari`ah*. Adhering to the *Shari`ah* is part of the realization of *Tawhid*. *Tawhid*, *Shari`ah*, and worship are important components that make up the definition of Islamic spirituality. These three components can be represented in figure 1 below, with Allah being the center of these components.

Figure 1: Components of Islamic spirituality



Entrepreneurial Opportunity

Opportunities are the precondition for entrepreneurship. The process of venture creation begins with recognition of opportunities. In this paper we adopt the definition of entrepreneurial opportunity provided by Shane and Venkataraman (2000, p. 220) as, "those situations in which new goods, services, raw materials, and organizing methods can be introduced and sold at greater than their cost of production". Since it is impossible for entrepreneurs to identify every potential opportunity, knowledge on the sources of opportunity would be helpful in assisting aspiring entrepreneur to start looking for one (Blundel and Lockett, 2011). The current debate on the sources of opportunity divides the issue into two major opinions. First, there are researchers who view opportunities as objective phenomena – that is independent of entrepreneurs' thinking, reasoning, and behaviours (Shane and Venkataraman, 2000), which can be explained by the discovery theory. The second view contends that opportunities are socially constructed and “do not exist independent of the entrepreneur’s perceptions” (Alvarez and Barney, 2007, p. 15). This view is the basis of the creation theory.

While these two theories acknowledge the presence of competitive imperfections in a market or industry that leads to existence of opportunities, they seem to differ on the sources of the competitive imperfections.

The discovery theory considers that competitive imperfections emerge due to external factors such as changes in technology, consumer taste, or other aspects of the market or industry context (Kirzner, 1973;Alvarez and Barney, 2007). Shane (2003) further adds changes in technology, political and regulatory, and social and demographic to the list of factors that can give rise to entrepreneurial opportunity. Recognition of external factors as the source of opportunity enables opportunities to be viewed as being real and objective phenomena, free from entrepreneurs’ behaviours and thinking, and waiting to be found and capitalized on (McKelvey, 1999;Alvarez and Barney, 2007). Hence, the role of entrepreneurs is to search for the opportunities and to exploit them (Shane, 2003).

Meanwhile, the creation theory assumes that opportunities are created, derived internally, and result from entrepreneurs looking into ways to produce new products or services (Weick, 1979;Gartner, 1985;Sarasvathy, 2001;Baker and Nelson, 2005;Alvarez and Barney, 2007). However, according to Alvarez and Barney (2007), this view is yet to be developed and integrated into a single consistent theory in the literature. Since opportunities are derived internally, their existence are depending on entrepreneur’s perceptions and are socially constructed (Berger and Luckmann, 1967;Aldrich and Kenworthy, 1999). Therefore, according to this theory, entrepreneurs do not ‘search’ and they do not wait for opportunities to appear. Instead, they act to form the opportunities (Bhide, 1999;Sarasvathy, 2001;Baker and Nelson, 2005). Hence, creation theory regards entrepreneurs’ actions as the source of opportunities (Alvarez and Barney, 2007). This theory also proposes that the difference between entrepreneurs who create opportunities and those who do not create opportunities may not be that obvious. Nonetheless, small variances such as differences in local environment may result in some entrepreneurs forming opportunities while others do not, although these entrepreneurs may have similar attributes (Alvarez and Barney, 2007).

METHOD

Since spirituality is such a personal experience and differs between individuals, qualitative research design is the best research strategy to observe, study, and identify factors that contribute to entrepreneurial opportunities recognition inductively, within an Islamic context. Qualitative research approach allows illustration and explanation of phenomena for deeper insights to emerge for theoretical development. Illustration is important as it demonstrates the causal relationships more directly (Siggelkow, 2007), hence enable the researcher to get closer to the constructs in the development of new theory. Furthermore, this type of research design is important as empirical and qualitative work that concentrates on the diversity and forms of values and spirituality in organisations have been sparse (Karakas, 2008).

As the emphasis of qualitative research is on information-richness, qualitative researchers are more interested in sources that are information-rich (Patton, 1990). Therefore, sample selection in qualitative research is purposive (Miles and Huberman, 1994), where participants with relevant knowledge, experience, position, ideas, and thoughts, and criteria that are relevant to the study are selected (Gibson and Brown, 2009). We used criterion sampling, the most common sampling strategy for quality assurance (Patton, 2002) and work best when all participants consist of people who have experience on the phenomenon being studied (Creswell, 2007). The participants were selected based on three criteria: 1) they were known to incorporate a spiritual approach in their ventures, 2) they had created the ventures, and 3) they were willing to participate in this research.

Fifteen entrepreneurs from various types of entrepreneurial ventures participated in this study. Participants differ in terms of gender, age, and years in business and have diverse professional and educational backgrounds (see Appendix A). We used semi-structured interviews to explore participants' experience in order to understand and accurately describe the phenomenon of interest from their perspective (Flick, 2007). The interview questions were designed to cover three things: 1) background of participants and ventures, 2) the emergence of the ventures, and 3) the impact of their spiritual principles on the venture creation. We spent approximately 90 minutes interviewing each participant at his/her venture. With the permission of the participants, these interviews were recorded and later transcribed.

In keeping with the tradition of interpretive research method, the transcribed texts become the centre stage in the process of analysis (Locke and Golden-Biddle, 1997). The data were analysed thematically, an approach that focuses on identifying and describing both implicit and explicit ideas within the data (Guest et al., 2012). In order to allow major themes and categories to emerge from the data, transcripts were read several times. Reading the transcripts in detail helps researcher to familiarize him/herself with the content and to understand the "themes" that might present in the data (Thomas, 2003). All data extracts were coded and grouped together within each code. The general or upper level categories were derived based on the objective of the study, which resulted in recognition of opportunity in terms of problem solving. The lower level categories were derived from the raw data and led to two categories of problem identification: 1) missing product or service and 2) dissatisfaction with the current situation.

FINDINGS

In examining how Malay Muslim entrepreneurs recognise entrepreneurial opportunity, 'solving a problem' emerged as the major factor influencing these entrepreneurs to start their ventures. This problem arose due to the gap between the entrepreneurs' expectations and the reality. The gap can be categorised into 1) a market gap which was caused by missing product or service in the market, and 2) dissatisfaction with the current situation due to the gap between the reality and the entrepreneurs' feelings of right or wrong on how things should be.

Missing product or service

For half of the participants, the discovery of opportunity was triggered by their awareness of missing product or service that complied with the *Shari`ah* law from the market. The absence of these products/services created problem for practicing Muslim customers. There were three issues emerged from the data with regard to this theme: i) covering the ‘awrah, ii) consuming halal products, and iii) seeking knowledge.

i) Covering the *‘awrah*

‘Awrah refers to the woman’s body parts that are not allowed to be shown. In regard to non-*mahrem* (person a woman can marry), a woman’s *‘awrah* constitutes her whole body except for her face and hands (al-Qaradawi, 1999). Four entrepreneurs related their sources of opportunity with the problems of missing product/service that comply with the Shari`ah law in regard to the issue of covering the `awrah. For participant A, recognition of opportunity to start her Muslim swimwear company was discovered when a friend told her that she did not have any proper swimwear to be worn in public:

> *It was an idea of a friend, when she told me that she does not have any proper swimwear to be worn in public. At that time I had also noticed that there was no suitable swimwear for women who wear hijab. (A)*

An experience of epiphany, such as a feeling of strong sense of obligation to comply the *Shari`ah* law could also triggered the opportunity. As revealed by participant F, an owner of Islamic fashion boutique, who experienced such feeling after performing the pilgrimage in Mecca:

> *After my first hajj in 2004, I thoroughly observed the Muslim way of dressing. I had to reinvent my whole wardrobe and throw away all my mini-skirts and sleeveless shirts and found that I had virtually nothing in my wardrobe. I couldn’t find anything that suited my build and physique in the local market and none that suited my taste and needs. This is when the idea of the boutique was first born. (F)*

Another participant (E), a designer and image consultant who also own a boutique that specifically targeted to Muslim women, also shared the same experience. She expressed her disappointment with what the market has got to offer for a hijab wearer like her. As she explained:

> *I started wearing hijab at the age of 17 and I find it difficult to dress well because the market doesn’t have that kind of dress (E)*

An opportunity can also be triggered by customer’s demand. Participant H described how she began to recognise the opportunity to venture into the health and beauty industry:

> *…there are demands from people [Muslim lady customers] who are seriously practicing Islam, to get a comfortable spa treatment to rest their minds and can conform to their religious needs. (H)*

In these situations, the absence of products (dress and swimwear) and service (spa treatment) that conform to female Muslim consumers’ religious needs – the need to cover their *`awrah*, forms a gap in the market and lead to opportunity discovery by these participants.

ii) Consuming *halal* products

The *Shari`ah* law states that the Muslim must not consume or use products that contained non-permissible substance. Allah says in the Qur`an, “O mankind! Eat what is lawful and good on earth, do not walk in Satan’s footsteps, for he is open enemy for you” (chapter 2, verse 168). Verse 173 of the same chapter further clarifies what constitutes as ‘unlawful and non-permissible’ which includes, “carrion, blood and the flesh of swine, and any flesh which is consecrated to something other than Allah…”

One participant explained that the absence of Muslim made product in the market was initially identified by his late father and triggered him to start his venture:

> *It was something that my late father saw at that time, that we [Muslims] need to have an option in terms of Muslim products, one that is made by Muslim (B, owner of Muslim skincare and healthcare products).*

Participant H, an owner of health and beauty spa also shared the same concern in regard to halal skincare and beauty products:

> *In Islam, women who take a good care of themselves, physically, hygienically, perform their religious duties, they become the source of peace and serenity for their husbands. So, it is unfortunate if the sources of beauty are from the non-permissible sources or activities. (H)*

The absence of *halal* – lawful and permissible – products and services in the market and the obligation to comply with the *Shari`ah* law created a problem that needed to be solved, which later triggered the opportunity. In these situations, opportunities were discovered, due to the existence of gap in the market for such product and service.

iii) Seeking knowledge

The third issue relating to missing product or service is seeking knowledge on Islam. Islam encourages Muslim to seek knowledge about everything that can bring them closer to their Creator (Allah), increase their knowledge on Islam, and everything that can benefit themselves, their community and the world at large. Participant O who started her Islamic pre-school education center discussed how she first discovered the opportunity to start her venture:

> *...the idea was to have it as a bookshop because I was looking for books for my own children. At that time Islamic books for children were really hard to find – colourful, interesting ones for kids. So, that’s how I started. (O)*

Participant G, who owns a media company also related to the same experience on the lack of English reading materials on Islam:

> *…when we were overseas, I noticed there are a lot of materials [books, videos, and CDs] in English on Islam, but when we came back, we don’t have those materials. (G)*

In these situations, these entrepreneurs discovered the opportunities themselves. The opportunities emerged as a result of their need to seek for knowledge on Islam or their need to educate others on Islam. Coincidently, product that meets these needs happened to be absent from the market at that time.

Dissatisfaction with current situation

The second theme that emerged from the data with regard to the types of gap that triggered opportunity recognition is participants' feelings of dissatisfaction with the current situation. The feelings of dissatisfaction with the current situation originated from the gap that existed between the reality and the participants' expectations on how things should be. Participants' expectations on how things should be is based on what the *Shari`ah* prescribe. When the reality is not as what the *Shari`ah* has prescribed it causes dissatisfaction among the participants. The opportunity gap for these participants was an intrinsic spiritual one where the entrepreneurs believed it was crucial to not only live by these spiritual feelings but also to create something for themselves and for others that aligned with the spiritual principles. Hence, these entrepreneurs entered into an opportunity creation space rather than one where they actively pursued a gap in the market for a new product or service.

Participant I and L expressed their frustration with the social problem where many people did not have a high awareness of Islamic principles. This led them to enter into the publishing business with the aim of producing Islamic novels and comic books that would educate and instill Islamic principles in readers. As they explained:

> *…as we grow older we feel that it is our responsibility to do it. If other people are not going to do it, we'll do it. Our contributions are not many, but at least there is one (...) most of our novels aim at educating our readers spiritually. But we don't deny that there are people who can't accept and don't want to accept. (I)*
>
> *When we first decided to publish the comic book, at that time we [Malaysia] were importing reading materials from Japan and Hong Kong…for readers from that age group [children]. I think these reading materials were actually poisoned the mind of our children, because the content mainly conflicted with our culture, our thinking, and our understanding. (L)*

Meanwhile, participant M ventured into a healthcare business as she felt unhappy with the lack of economic power held by the Muslims in Malaysia. She recounted:

> *…among the reasons why I started this company is the realization of how important it is for the Muslim to have strong economic power.*
>
> *We knew this before, but there was nobody or no force that could help us in terms of that. All things in this world require us to have that sort of power – economic power (...) at that time I have to do something for my ummah and my own generation. That's why I said, the first thing is to help them in terms of economic power. (M)*

For Participant N, her experience of starting her Islamic wealth management company is part of her mission to recall the Muslims back to the *Shari`ah* – that is back to practicing Islamic finance. As she recalled how she recognize the opportunity to venture into:

> *...you know that is Allah's calling that you need to reach out to people. So, you have to do it, because it's a form of da'wah also. If you remember Him, He will remember you more. Meaning, the more you talk about Allah, how you bring people back to the path [of practicing Islamic finance], He will help you then. (N)*

Participant E who is a designer and image consultant, regarded venturing into the business as part of her act of worshipping Allah. She considered entry into the business as well as the day-to-day operations enabled her to deepen her spiritual path according to the *Shari`ah*. She revealed:

> *For me, having this business, giving talk is an `ibadah (worship), because I'm propagating Islam through dressing correctly, so that the image of Islam is not tarnished. (E)*

In summary, all participants' were found to strive to realise the *Tawhid, where they* recalled Muslim back to live their lives according to the *Shari`ah* is the enactment of opportunity. Table 1 summarises the type of problem and opportunity that emerged for these participants. In the context of our study, two types of problems were found to originate from issues related to Muslims' obligation to live their lives according to the *Shari`ah*: 1) to cover their *`awrah*, 2) to consume halal product, and 3) to seek knowledge on Islam. Since this type of problem created gap in the market, the opportunities identified by entrepreneurs were 'discovered'. The second type of opportunity identification was 'dissatisfaction with the current situation'. Unlike the problem of 'missing product or service', this type of problem did not much emerge from a gap in the market, but rather it was inspired in the mind of the entrepreneurs; that is, they created the opportunity.

Table 1: Opportunity discovery and creation based upon *Islamic Shari`ah*

Problem	Gap	Participants	Discovery / creation of opportunity
Missing product or service	Covering *'awrah*	A	Discovery
	Consuming *halal* product	B, D, H, K	
	Seeking knowledge	G	
Dissatisfaction with the current situation	How things should be (according to the *Shari`ah*) and the reality	E, I, L, M, N	Creation

DISCUSSION AND CONCLUSION

Taking a Malay Muslim perspective, we examined "How does spirituality shape the sourcing of entrepreneurial opportunities?" The data demonstrated that the absence of a product or service that complied with *Shari`ah* law created a gap in the market, triggering the discovery of an opportunity. In this context of study, a political force which existed in the form of Islamisation process by the government of Malaysia and a society's change of lifestyle that required *Shari`ah* compliant products and services provided exogenous shocks that contributed to the emergence of opportunity (Kirzner, 1973; Shane, 2003). The second types of entrepreneurial opportunity, the creation process, existed as a result of entrepreneurs' 'thinking outside the box'. A gap existed between these entrepreneurs' feelings of right or wrong based on what is prescribed by the *Shari`ah* and the reality, caused dissatisfaction amongst these entrepreneurs. Consequently they responded by creating the opportunity. Alvarez and Barney (2007) describe this type of opportunity as "endogenously created by the actions, reactions, and enactment of entrepreneurs exploring ways to produce new products or services" (p. 15). Instead of waiting for exogenous shocks to form opportunities, these entrepreneurs proactively create opportunities and then define their markets (Baker & Nelson, 2005; Sarasvathy, 2001).

The findings of this study support Dodd and Seaman's (1998) assertion that religion does play an important role at macro-level in entrepreneurship. Rather, spirituality was found to shape the foundation of the establishment of these entrepreneurs' ventures. Before they even got the ideas on what to produce or what type of business they would want to venture into, these entrepreneurs knew that at the end of the day the venture will have something to do with contribution to their spiritual well-being, or something that will bring them closer to their purpose of being. Hence, their spiritual beliefs gave them the general idea of what the venture should be or will be and where it will lead them.

The main contribution of this study is to begin to understand the relationship between spirituality and the opportunity recognition process. Although the ideas for the venture originated from outside sources, such as friends, families, or customers, spirituality helps entrepreneurs to 'focus within' in order to gain an awareness of themselves and to reaffirm their justification for their decisions to pursue entrepreneurship. This study also provided one alternative lens to view the process of entrepreneurial opportunity recognition – the spiritual lense.

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Appendix A: Demographics of the participants

Participant	Nature of Business	Number of Employees	Year of Establishment	Position	Gender	Education Background
A	Muslim swimwear (Manufacturing & Retailing)	5	2006	Managing Director	Female	Degree in Economics
B	Skincare & healthcare (Multilevel Marketing)	16	1992	Managing Director	Male	Master of Law
C	Skincare & healthcare (Multilevel Marketing)	16	1992	Product Development Manager	Female	Master of Law
D	Public Relations & Market research	20+	1999	Founder & Managing Director	Female	Degree in Public Relations
E	Office wear (retailing), Training & Consultant	5	2000	Founder & Director	Female	Degree in Mass Communications
F	Publisher & distributor of Islamic media	24	1989	Managing Director	Female	Degree in Mathematics
G	Clothing – Prayer garment & Islamic 'couture'	6	2010	Owner	Female	Degree in Public Relations Studies & Management
H	Beauty care & Spa	10	1989	Founder & Managing Director	Female	Degree in Education
I	Skincare manufacturing & Trading	5	2003	Managing Director	Male	Degree in Textile Technology
J	Publishing House	8	2011	Managing Director	Female	Degree in Mass Communications
K	Publishing House	8	2011	Executive Director	Female	Degree in Engineering
L	Islamic preschool	1	2008	Managing Director	Female	Degree in Engineering
M	Healthcare & Skincare (Trading)	12	2006	Managing Director	Female	Degree in Graphic Design
N	Wealth Management Firm	10 full timers	2007	Founder & Principal Partner	Female	Degree in Economics & Finance
O	Printing & Publishing Company	60	1995	Managing Director	Male	Degree in Mathematics

Adoption of Technological Innovation in a Developing Country: An Empirical Analysis of Small and Medium Enterprises in Lao People's Democratic Republic

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Abstract

This paper will examine the efforts of small and medium enterprises (SMEs) in Lao People's Democratic Republic (Lao PDR) to adopt new technologies. Using 2012 data from the World Bank Enterprise Survey, the empirical analysis will estimate the likelihood of adoption of new technologies in general, new product innovation, new process innovation, and new services innovation. The key explanatory variables of adoption include the degree of exporting and whether the SME is the partner of a large firm; exposure to global markets and access to the resources of a partner might be expected to increase the likelihood of technological innovation.
While the above might be surmised a priori, the real contribution of the paper is to measure both the magnitude of the key explanatory variables on adoption as well as the type of innovation adopted: product v. process v. service. This information would be useful to policymakers in the developing countries of Asia as they pursue strategies such as linking SMEs to larger companies in global value chains and offering export inducements to SMEs. Additionally, the context of Lao PDR is scarcely mentioned in academic literature because of its small size and stage of development. A study of SMEs in Lao PDR would augment the stock of knowledge in entrepreneurship. Since the data is so recent (2012) it is unlikely that many studies utilizing it have been published to this point.

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Introduction

Academic literature touts technological innovation as a pillar of enhanced firm performance (Wang, Lo, Zhang, and Xue, 2006; Dess, Lumpkin, and Covin, 1997). In order to stay competitive, firms of all sizes and across sectors need to combine and re-order inputs in novel ways (Kogut and Zander, 1992; Schumpeter, 1934). The need to innovate is prevalent across nations as well. Advanced economies strive to maintain their standard of living at a minimum, while developing countries seek to improve theirs.

Lao People's Democratic Republic (hereafter Lao PDR) is an example of the latter. Classified by the World Bank as a lower-middle-income country, it has a per-capita gross national income (GNI) of $1,260 (World Bank, 2013). Though it is small with a population of only 6.6 million (ibid), its government hopes that fostering entrepreneurship and the small and medium enterprise (SME) sector will in turn fuel innovation and economic development (Tipton, 2009; Prime Minister's Office (PMO) of Lao PDR, 2004).

In order for SMEs to innovate, they often need to seek larger partners to surmount their resource constraints (Lu and Beamish, 2001), e.g. knowledge, capital, and human resources. Among organizational constraints; the concept of absorptive capacity is crucial for firm innovation (Cohen and Levinthal, 1990). Absorptive capacity is the ability of organizations to learn new processes and techniques.

While innumerable papers have examined absorptive capacity, innovation, and firm performance, few have studied these issues in the context of Lao PDR. It is not just this country per se, although the fact that Lao PDR is scarcely covered in business and management journals is one contribution of this manuscript to the academic literature. The broader question/contribution is to consider the role of absorptive capacity, innovation, and firm performance in a nation that is both extremely small and extremely poor. Policymakers around the world urge their SMEs to export or otherwise internationalize their operations, hoping that a virtuous cycle of market expansion, collaboration with better-endowed firms, and growth will take root. At what level of economic development can such a cycle reasonably be expected?

This paper aims to investigate these issues using a recent (2012) World Bank survey of 379 firms in Lao PDR. There are several noteworthy findings. Firms that export are 14% less likely to adopt new technologies, while firms that hold an international certification of quality are 19% more likely to adopt new technologies. Firms that partner with larger firms are 13% more likely to adopt new technologies and 17% more likely to adopt new processes. New technologies do correlate positively with sales; firms adopting new technologies generate nearly 100% more revenues than the average.

The organization of the paper is as follows. The next section contains a review of the pertinent literature and hypotheses for testing. A description of the data and empirics follows. The penultimate section presents the results, and a discussion of the findings along with avenues of future research conclude the manuscript.

Literature review: Innovation and firm performance in Lao PDR

Innovation can have a number of different meanings. Kogut and Zander (1992) define innovation as: "new learning that are the products of a firm's combinative capabilities to generate new applications from existing knowledge" (p. 391). Kogut and Zander specify that "combinative capabilities" are "the intersection of the capability of the firm to exploit its knowledge and the unexplored potential of the technology" (ibid). The idea of innovation revolving around the recombination of firm inputs to meet market needs can be traced to Schumpeter (1934); this is the sense innovation conveys in this paper[1].

Innovation can occur in a variety of ways and be of different types. This paper concerns product innovations defined as recombinations of firm knowledge that result in new products or services for the market. This distinguishes them from process innovations, which are recombinations that result in new ways of delivering existing products to the market. A firm undertakes innovation with the expectation of higher profits, though this expectation may not be met. According to Leiponen and Helfat (2010), possible objectives of product innovation "may include goals such as the development of a completely new product or the improvement of an existing product" (p.225). Empirical studies (Wang, et al. 2006; Therrien, 2003; Dess, Lumpkin, and Covin, 1997; Geroski, Machin, and Van Reenen, 1993) support the notion that increased innovation enhances firm performance.

The ability of a firm to innovate revolves around its resources (Peteraf, 1993; Wernerfeldt, 1984), including the ability to learn from others (Al-Kwifi and Ahmed, 2013; Inkpen and Crossan, 1995; Jones and Macpherson, 2006). This ability to learn is commonly termed "absorptive capacity" (Cohen and Levinthal, 1990: p.128) and suggests that the value of collaboration will be bounded by the firm's comprehension of what the other party has to teach. This knowledge-sharing, and the creativity surrounding it, is perhaps the most important resource for innovation (Wu, Lee, and Tsai, 2012, Afuah, 1998). Geringer (1991) suggests that a firm's search for collaborators begins with an assessment of competencies and complementarities. A good match produces operating synergies that in turn produce greater profitability and market share (Luo, 1997; 2002). These synergies may be technological, marketing, or management-oriented; they will likely result in recombinations of knowledge that are the foundation of innovation.

Firms internationalize their operations via exports, trade, cross-border collaborations, and joint ventures (Singh, Pathak, and Naz, 2010). The literature on internationalization of SMEs reports that alliances between MNEs and SMEs have as a primary driver the desire of the SME to overcome resource constraints (Liu, Xiao, and Huang, 2008; Lu and Beamish, 2001). These resource constraints include but are not limited to capital, personnel, and technology, and are more severe for SMEs than for established firms (Singh, et al. 2010; Beamish, 1999). Suffice to say, domestic collaborations can also help overcome these constraints, but MNEs, with their global reach, presumably have more resources than the vast majority of domestic firms. MNEs often also possess greater quality of resources, e.g. frontier technology (Abereijo, et al., 2012). This line of reasoning leads to the following propositions:

[1] In the interest of full disclosure, this discussion on firm innovation hews closely to similar content in my forthcoming article in the Journal of Technology Management in China (Troilo, 2014)

Proposition 1: Firms that partner with larger firms are more likely to adopt innovations than firms lacking such partnerships
Proposition 2: Firms with some foreign ownership are more likely to adopt innovations than firms lacking such ownership.
Proposition 3: Firms engaging in internationalization activities such as exporting or acquiring certifications are more likely to adopt innovations than firms not thus engaged.

It may reasonably be expected that the concepts expressed above are more or less universal, but the context of Lao PDR may demonstrate how absorptive capacity, or its absence, will affect the efforts of firms to upgrade their skills. A small enterprise in Denmark may be equal with or superior to a medium enterprise several times its size in Lao PDR with respect to absorptive capacity, depending upon the industrial sector. As mentioned in the introduction, Lao PDR is both destitute and tiny. It may even be the case that a small-enterprise in a middle-income country like China has an absorptive capacity greater than that of a Laotian company twice its size in employees.

Of course, much depends on the definitions of firm size, among other factors. The PMO of Lao PDR uses employment to categorize firms as "micro" if they have less than five full-time workers, "small" is between 5-19 employees, "medium" is between 20-99 workers, and "large" employs 100 or more people (PMO, 2004). The World Bank Microenterprise Survey (2012) data for Lao PDR utilizes these same conventions. Beyond the fact of mere poverty, Lao PDR is single-party state that began its shift from a Marxist planned economy in 1986; it has been described as a "State-Coordinated, Liberal Market Economy" (Andriesse, 2011; Ritchie, 2009). Characteristic of a country at this stage of development, Lao PDR is dependent upon commodities such as copper and lumber and low-skilled industries such as garments to power its economy (Andriesse, 2011).

The two traits most common to successful SME owners in Lao PDR are possession of high levels of education and technical skills and deft touch with customers (Southiseng and Walsh, 2010). This is not surprising in a nation where only 37% of males and only 23% of females over the age of 25 have finished high school (Andriesse, 2011; UNDP 2010). Educational attainment would be an obvious advantage in problem-solving and management, and the common touch would be crucial when so many are lacking in education. Trust and family networks are the most popular ways of conducting business and sourcing capital (Tipton, 2009). Lao PDR celebrated its first initial public offering (IPO) in 2010 (Andriesse, 2011), giving a clear signal about the underdeveloped stage of capital markets.

In an advanced economy, the propositions outlined above might be expected to apply to all sizes of firms. Although the Lao PDR government is undertaking greater efforts to facilitate technology transfer, foster innovation, and encourage high-tech entrepreneurship (Abe, Troilo, Juneja, and Narain, 2012; Lee, Kim, and Maliphol, 2011), these efforts take time to bear fruit, precisely because absorptive capacity needs to be developed. For Lao PDR, only larger firms will evidence the propensity to adopt innovations:

H1: Medium-sized firms are more likely to adopt innovations than small or micro-enterprises.
H2: Large firms are more likely to adopt innovations than medium, small, or micro-enterprises.

Of course, it is not innovation per se that is the goal but rather the performance of the firm that is innovating; the innovation is the means to the end of higher performance. Empirical studies support the notion that greater innovation increases firm performance (Wang, et. al., 2006; Therrien, 2003; Dess, Lumpkin, and Covin, 1997). Adopting innovations should improve firm sales, ceteris paribus:

H3: Firm innovations will have a positive effect on sales.

Data and methods

The data consists of 379 firms the World Bank sampled and interviewed in Lao PDR in both 2009 and 2012 (World Bank Enterprise Survey Lao PDR, 2012). The former consists of most of the demographic, attitudinal, and performance metrics, while the latter gathered additional information on labor and workforce skills. The World Bank used a stratified random sampling method of firms across the economy excluding agriculture to ensure unbiased representation across industrial sectors, size of firm, and the like. A perusal of the data revealed several outliers with regard to 2009 sales figures. These anomalies were dropped from the dataset to yield 361 usable observations.

Table 1 provides some basic characterizations of the data. Nearly half of the firms are small enterprises, and other 34% qualify as medium-sized companies. Almost 40% hail from the region around Vientiane, the capital, with the remaining 60% being more or less evenly distributed across the other five geographic locations. The leading industrial sectors are retail, education services, and real estate services with approximately 16%, 14%, and 10% of the distribution, respectively.

Table 2 defines the variables in the analysis. There are five dependent variables, one of which is continuous and the others categorical in nature. Sales2009 is sales in millions of Laotian kip and will proxy firm performance. The other four variables as defined ask whether a new technology, process, good, or service has been adopted in the past three years, and score a 1 if the answer is “yes” and 0 if the answer is “no”.

There are four explanatory variables of interest, and all of them are categorical. Export scores a 1 if the firm is exporting any amount of its goods or services; this exporting can be done directly to another country or indirectly via another company. Export is one proxy for internationalization activities. The other is QualityCertificate, which scores a 1 if the firm possesses an internationally recognized certification of quality like ISO 9000, and 0 otherwise. PartnerLargerFirm measures collaboration: if the firm is part of a larger entity the score is 1 and 0 otherwise. Since foreign cooperation can be particularly important for technological innovation there is a variable, ForeignOwnership, recording a 1 if any non-Laotian firm or person holds any portion of the respondent firm.

A host of controls rounds out the variables. At the firm level, there are separate measures for firm size, with Micro as the omitted category in the regressions. FirmAge is a continuous variable capturing the age of the firm in years, and TopManagerExperience is also a continuous variable measuring the work experience of the chief director of the firm in years. Additional firm controls include whether the legal status of the firm is a sole proprietorship, whether at least one of the owners is female, and whether the respondent firm is satisfied that the higher education system and the Technical and Vocational Education and Training (TVET) is preparing the workforce. For industry controls, there are categorical variables for each of the sectors found on Table 1, with Electricity as the omitted category. There is also a regional categorical variable for Vientiane.

Table 3 describes the statistics. On average, firms in the sample had 7.75 billion kip in sales in 2009. In terms of innovation adoption, the mean ranges from 37% for new products and 45% for new processes. Nearly 20% of firms export and 10% hold international quality certifications. Almost 14% are partners with larger firms, and about 10% have at least some degree of foreign ownership. Almost 90% are sole proprietors, and the sample has a mean firm age of 12.31 years. The heads of these companies have nearly 15 years of work experience. The majority of the respondents are pleased with how both the higher education system and the TVET system are preparing job candidates.

Since firm size is of interest in this study, a pre-estimation analysis of the percentages of firms by key variable and firm size appears on Table 4. Not surprisingly, the percentages climb with firm size. In certain cases, the differences are dramatic: for example, only 22% of medium-sized companies export compared with 58% of large firms. Three times as many large firms have some foreign ownership v. medium enterprises. Nearly 55% of medium enterprises have adopted a new technology in the past three years v. only 32% of small enterprises.

Another pre-estimation check is to examine the variables for collinearity. Table 5 presents the correlation matrix of the main variables for brevity, but the entire matrix of variables was checked. Collinearity does not appear to be a concern. The highest correlation is 0.612 between NewTechnology and NewProcess, but this is below the threshold of 0.70 generally used as barometer for collinearity.

The estimation methodologies are straightforward. The first part of the analysis estimates the likelihood that a firm adopted a particular innovation. Since the probability of an outcome is to be estimated, a logistic regression is an appropriate methodology (Woolridge, 2002). The regression equation is the following:

$$\Pr(\text{innovation}) = \alpha(Export) + \beta(QualityCertificate) + \gamma(PartnerLargerFirm) + \theta(ForeignOwnership) + \delta \sum_{1}^{9}(FirmControls) + \varepsilon \sum_{1}^{24}(IndustryControls) + Vientiane + Constant + \epsilon \quad (1),$$

where the categorical variables NewTechnology, NewProcess, NewProducts, and NewServices alternate as the dependent variable in the equation. The firm controls are those previously described, e.g. Small, Medium, Large. Micro and Electricity are the omitted categories in FirmControls and IndustryControls, respectively.

The second part of the analysis is the estimation of sales. Since the relationship between this continuous variable and the independent variables appears to be linear, and since other conditions are met, e.g. homoscedasticity and normality of distribution of the error term, ordinary least squares (OLS) regression is an appropriate methodology (Woolridge, 2002). The equation is similar to (1):

Sales2009 = $t(innovation) + \alpha(Export) + \beta(QualityCertificate) + \gamma(PartnerLargerFirm) + \theta(ForeignOwnership) + \delta \sum_1^9(FirmControls) + \varepsilon \sum_1^{24}(IndustryControls) + Vientiane + Constant + \epsilon$ (2),

where NewTechnology, NewProcess, NewProducts, and NewServices alternate as an independent variable in four separate predictions of Sales 2009.

Results

Table 6 displays the results of the logistic regressions of innovation adoption. For NewTechnology, Export is negative and significant at 10%, while QualityCertificate is positive and significant at 5% and PartnerLargerFirm is positive and significant at 10%. For NewProcess, PartnerLargerFirm is positive and significant at 5%. None of the four explanatory variables are significant for either NewProducts or NewServices. For firm size, the variables Medium and Large are positive and significant for all specifications except for Medium and NewTechnology.

The next step is to calculate the marginal effects of the key explanatory variables that are statistically significant. The marginal effect is the partial derivative of the dependent variable with respect to the independent variable, holding all other variables constant at their mean values. For a categorical independent variable in a logistics regression, the marginal effect is the change in probability of the dependent variable occurring when the independent variable changes from 0 to 1. Calculating marginal effects for NewTechnology reveals that Export is associated with a 14% decrease in the likelihood that exporting firms will adopt a new technology. On the other hand, firms that hold an international quality certification are nearly 19% more likely to adopt a new technology, and firms partnering with larger companies are 13% more likely to adopt a new technology.

Repeating this analysis for NewProcess finds that firms partnering with larger enterprises are 17% more likely to adopt a new process than firms without such partners. Although the firm size variables are control variables, it is instructive to observe the differences. Large firms are nearly 37% more likely than microenterprises (the comparison category) to adopt new technologies, 62% more likely to adopt new processes, 44% more likely to adopt new products, and 40% more likely to adopt new services. Medium-sized companies are 33% more likely to adopt new processes, 25% more likely to adopt new products, and 24% more likely to adopt new services. These findings generally support both **H1** and **H2**.

Table 7 shows the results of the OLS regressions. There are only two findings of significance. NewTechnology is positive and significant at 5% for Sales2009, and in the third regression ForeignOwnership is positive and significant at 10% for Sales2009. Unlike in the logistic regression, where the marginal effects are distinct from the values of the coefficients, the values of the coefficients in an OLS estimation also can be interpreted as the marginal effect of that variable. Adopting new technology is associated with an increase of nearly 7.8 billion Laotian kip in 2009 sales, v. not adopting new technology. To put this amount in perspective, recall from Table 3 that the mean value of sales is also nearly 7.8 billion, so the marginal effect is a nearly 100% increase. The marginal effect of ForeignOwnership is 10.45 billion kip, or nearly a 135% increase, but the caveat is that this variable is significant at only 10% in only one specification. The influence of foreign ownership on sales cannot be said to be robust. **H3** is at best weakly supported, since the adoption of only one innovation (NewTechnology) correlated positively and significantly with firm performance (Sales2009). Perhaps not surprising, being a large firm is statistically significant at 1% across all four specifications.

Discussion and conclusion

The purpose of this paper is to investigate firm adoption of technological innovation in Lao PDR, and also to determine what impact, if any, such innovations have on firm performance, specifically current revenues. Beyond gathering stylized facts about a country that is scarcely covered in management literature, another contribution is to start the conversation about the relationship between the absorptive capacity of firms and the national level of economic development when that level is exceedingly low. As has been mentioned, Lao PDR is both tiny in terms of its population and its income level; its market doesn't make a ripple in the global economy. To what extent can collaboration with better-endowed firms and internationalization of operations lead to the adoption of technological innovations, thereby kick-starting a virtuous cycle of firm growth and national development in a context like Lao PDR?

There are several key findings around this question. Firms that obtain international quality certifications are more likely to adopt new technologies, as are firms that partner with larger enterprises. The adoption of new technologies in turn correlates with higher firm revenues, to the tune of nearly 100% above the average sales figure. Crucially, the question asked about new technologies does not specify which technology was adopted, and more nuanced questions about processes, products, and services were not found to be statistically significant with regard to revenues. A limitation of this study, and an avenue for future work, is to identify what innovations are of particular value to the firms in Lao PDR and similar contexts.

A peculiar finding is the negative relationship between exporting behavior and the likelihood of adopting a new technology. Lee, et al. (2011) specifically advise the Lao PDR government to craft an export-oriented strategy for deepening the national innovative capacity, yet this finding contradicts such advice. It may be again that a more honed question about the type of technology adopted would resolve this issue, or a more nuanced empirical analysis, e.g. by industrial sector, might answer it. Since internationalization activities like exporting do often lead to greater innovation it hardly seems reasonable to put too much stock in this anomalous finding.

Collaboration with larger firms is statistically significant for adopting new technologies and for adopting new processes, with the former significant for sales. In addition, foreign ownership is statistically significant for sales in one of the OLS estimates. This suggests that small and medium enterprises, particularly the latter at this point in Lao PDR, would benefit from membership in global value/supply chains, which should also be a policy priority (c.f. Abe, et al. 2012, p. 173).

Firm size matters. Some of the recommendations found in the cited literature (Ritchie, 2009; Southiseng and Walsh, 2010; Abe et al., 2012) then need to be enhanced in order for nascent enterprises to survive and grow into large ones. These include actions the Lao PDR is already undertaking, such as skills education, entrepreneurship training, communication of regulations, as well as new efforts, e.g. better access to financing (Southiseng and Walsh, 2010; Abe, et al., 2012) and the construction of industrial parks (Lee, et al., 2011; Abe, et al., 2012). Obviously, some of these policy prescriptions are more expensive in both time and myriad resources than others. It is up to the Lao PDR government to prioritize according to their constraints.

Academically, this paper expands most nearly upon the work of Southiseng and Walsh (2010). The latter offer some specific policy suggestions based upon qualitative fieldwork (52 interviews) culminating in several case studies of entrepreneurs in Vientiane, Savannakhet, and Luang Prabang. The control variables for higher education and TVET are inspired by their findings of relevant entrepreneurial skills. This paper adds findings based upon empirical analysis of over 350 firms across Lao PDR. The results should be generalizable for this context if not similar ones.

In conclusion, this paper is just a start in understanding a small but complex economy: Lao PDR. Not only does this country require further study, the wider notion of absorptive capacity in the least-developed nations deserves further attention. It is hoped that this work will stimulate the curiosity of other scholars to pursue these topics.

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Table 1: Distributions

a. Firm size		Number	Percent
Micro	<5 employees	20	5.54%
Small	5-19 employees	180	49.86%
Medium	20-99 employees	123	34.07%
Large	100+ employees	38	10.53%
	Total	**361**	**100.00%**

b. Geographic region		Number	Percent
	Vientiane	144	39.89%
	Savannkhet	45	12.47%
	Champasak	38	10.53%
	Luang Prabang	46	12.74%
	Luang Namtha	31	8.59%
	Khammouane	57	15.79%
	Total	**361**	**100.00%**

c. Basic industry		Number	Percent
	Mining	14	3.88%
	Food	13	3.60%
	Textiles	3	0.83%
	Garments	25	6.93%
	Wood	13	3.60%
	Paper	2	0.55%
	RecordedMedia	1	0.28%
	Chemicals	3	0.83%
	Plastics	4	1.11%
	MineralProducts	10	2.77%
	BasicMetals	6	1.66%
	TransportMachines	1	0.28%
	Furniture	8	2.22%
	Electricity	1	0.28%
	Construction	13	3.60%
	MotorVehicleSales	9	2.49%
	Wholesale	16	4.43%
	Retail	58	16.07%
	Information Tech IT	1	0.28%
	HotelRestaurant	32	8.86%
	Storage	3	0.83%
	FinancialServices	32	8.86%
	RealEstate	38	10.53%
	Education	50	13.85%
	Other	5	1.39%
	Total	**361**	**100.00%**

Table 2: Variable definitions

Variable Name	Variable Definition
Dependent variables	
Sales 2009	Sales revenue for fiscal year 2009 in millions of Laotian kip.
NewTechnology	In the past three years, has this establishment introduced any new technologies within this establishment?
NewProcess	In the past three years, has this establishment introduced any new processes within this establishment?
NewProducts	In the past three years, has this establishment introduced any new products on the market?
NewServices	In the past three years, has this establishment introduced any new services on the market?
Explanatory variables	
Export	Has this establishment exported any goods or services?
QualityCertificate	Does this establishment have an internationally recognized quality certification, e.g. ISO 9000?
PartnerLargerFirm	Is the establishment part of a larger firm?
ForeignOwnership	Is any portion of this establishment owned by a foreigner?
Control variables	
Micro	The establishment has fewer than five employees.
Small	The establishment has at least 5 up to 19 employees.
Medium	The establishment has at least 20 up to 99 employees.
Large	The establishment has 100 or more employees.
Sole	The owner/manager of the establishment is a sole proprietor.
FirmAge	Age of the establishment in years
FemaleOwner	Does the establishment have at least one female owner?
TopManagerExperience	Work experience of the top manager in years.
TVET	Does the TVET system meet the skills needs of employers?
HigherEd	Does the higher education system meet the skills needs of employers?

Note: Industry controls not listed for brevity.

Table 3: Descriptive Statistics

Variable Name	Observations	Mean	Std. Dev.	Min	Max
Dependent variables					
Sales 2009	361	7,751.18	30,876.33	7.20	375,000.00
NewTechnology	361	0.418	0.494	0.000	1.000
NewProcess	361	0.449	0.498	0.000	1.000
NewProducts	361	0.373	0.485	0.000	1.000
NewServices	361	0.407	0.492	0.000	1.000
Explanatory variables					
Export	361	0.197	0.398	0.000	1.000
QualityCertificate	361	0.100	0.300	0.000	1.000
PartnerLargerFirm	361	0.139	0.346	0.000	1.000
ForeignOwnership	361	0.094	0.292	0.000	1.000
Control variables					
Micro	361	0.055	0.229	0.000	1.000
Small	361	0.498	0.501	0.000	1.000
Medium	361	0.341	0.475	0.000	1.000
Large	361	0.105	0.307	0.000	1.000
Sole	361	0.881	0.324	0.000	1.000
FirmAge	361	12.319	8.279	1.000	75.000
FemaleOwner	361	0.463	0.499	0.000	1.000
TopManagerExperience	361	14.770	9.843	0.000	1.000
TVET	361	0.562	0.497	0.000	1.000
HigherEd	361	0.582	0.494	0.000	1.000

Note: Industry control variables omitted for brevity

Table 4: Percentages by firm size for key variables

	Percentage of firms by firm size.			
	Micro	**Small**	**Medium**	**Large**
NewTechnology	20.00%	32.22%	54.47%	57.89%
NewProcess	10.00%	38.89%	52.50%	71.05%
NewProducts	30.00%	32.22%	41.46%	52.63%
New Services	25.00%	36.11%	48.78%	44.74%
Export	5.00%	11.67%	21.95%	57.89%
QualityCertificate	0.00%	5.56%	13.82%	23.68%
PartnerLargerFirm	5.00%	7.22%	18.70%	34.21%
ForeignOwnership	0.00%	3.33%	11.38%	36.84%

Table 5: Correlation matrix of primary variables

		1	2	3	4	5	6	7	8	9
1. Sales2009	1	1.000								
2. NewTechnology	2	0.147	1.000							
3. NewProcess	3	0.133	0.612	1.000						
4. NewProducts	4	0.121	0.401	0.385	1.000					
5. NewServices	5	0.086	0.463	0.511	0.525	1.000				
6. Export	6	0.080	-0.024	0.002	0.079	-0.013	1.000			
7. QualityCertificate	7	0.194	0.168	0.109	0.125	0.063	0.138	1.000		
8. PartnerLargerFirm	8	0.121	0.164	0.186	0.104	0.157	0.044	0.161	1.000	
9. ForeignOwnership	9	0.256	0.073	0.090	0.252	0.061	0.103	0.178	0.255	1.000

Table 6: Logistic regressions of various innovations

	(1) NewTechnology	(2) NewProcess	(3) NewProducts	(4) NewServices
Export	-0.708*	-0.525	-0.360	-0.060
	(0.401)	(0.388)	(0.379)	(0.382)
QualityCertificate	0.936**	0.502	0.531	0.193
	(0.443)	(0.433)	(0.430)	(0.424)
PartnerLargerFirm	0.659*	0.836**	0.635	0.603
	(0.378)	(0.389)	(0.390)	(0.371)
ForeignOwnership	0.250	0.116	-0.330	0.281
	(0.512)	(0.518)	(0.549)	(0.504)
Small	0.132	1.215	0.860	0.580
	(0.670)	(0.828)	(0.584)	(0.609)
Medium	1.029	1.637*	1.270**	1.139*
	(0.709)	(0.858)	(0.643)	(0.656)
Large	1.844**	3.048***	2.275***	1.929**
	(0.865)	(1.010)	(0.799)	(0.836)
Sole	0.754	0.026	0.768	0.488
	(0.459)	(0.441)	(0.505)	(0.430)
FirmAge	-0.019	-0.049***	-0.018	-0.029*
	(0.017)	(0.019)	(0.019)	(0.017)
FemaleOwner	-0.232	-0.338	-0.063	-0.433
	(0.276)	(0.272)	(0.280)	(0.271)
TopManagerWorkExperience	-0.019	0.012	0.008	-0.002
	(0.015)	(0.016)	(0.016)	(0.015)
TVET	-0.212	-0.393	-0.390	-0.338
	(0.330)	(0.327)	(0.345)	(0.335)
HigherEd	-0.346	0.150	-0.041	0.082
	(0.334)	(0.333)	(0.343)	(0.338)
Vientiane	0.111	0.170	-0.163	0.181
	(0.297)	(0.295)	(0.302)	(0.280)
Constant	-0.491	-0.883	-2.368**	-0.853
	(1.018)	(1.113)	(1.016)	(0.951)
Observations	351	358	351	353
Likelihood ratio Chi-square	65.320***	67.550***	55.650***	49.680***
Pseudo R-square	0.138	0.137	0.122	0.105

Standard errors in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%
Industry controls are not shown for brevity.

Table 7: OLS Regressions of Sales

	(1) Sales2009	(2) Sales2009	(3) Sales2009	(4) Sales2009
NewTechnology	7,718.745**			
	(3,274.374)			
NewProcess		5,095.438		
		(3,217.144)		
NewProducts			4,158.567	
			(3,334.275)	
NewServices				4,665.091
				(3,215.535)
Export	-2,751.432	-3,337.513	-3,564.403	-3,755.947
	(4,670.892)	(4,680.559)	(4,681.850)	(4,672.825)
QualityCertificate	6,858.907	7,796.242	7,807.925	8,110.754
	(5,335.574)	(5,334.611)	(5,347.832)	(5,329.747)
PartnerLargerFirm	664.677	881.965	1,232.271	1,113.181
	(4,700.130)	(4,730.532)	(4,723.955)	(4,722.282)
ForeignOwnership	9,784.314	10,056.743	10,456.904*	9,878.289
	(6,265.387)	(6,293.059)	(6,306.568)	(6,299.596)
Small	2,961.940	2,301.874	2,247.019	2,508.972
	(7,389.488)	(7,440.267)	(7,464.956)	(7,439.059)
Medium	1,344.030	1,677.253	1,773.102	1,782.814
	(8,055.950)	(8,104.132)	(8,130.415)	(8,109.111)
Large	32,350.185***	32,480.571***	33,115.971***	33,387.151***
	(9,910.654)	(10,025.158)	(10,029.276)	(9,964.183)
Sole	3,751.347	4,795.939	4,349.398	4,360.672
	(5,320.190)	(5,325.501)	(5,346.967)	(5,338.420)
FirmAge	64.333	84.985	51.140	64.950
	(210.351)	(213.147)	(211.620)	(212.005)
FemaleOwner	4,963.602	5,010.351	4,666.387	5,042.510
	(3,368.486)	(3,389.778)	(3,386.393)	(3,395.282)
TopManagerWorkExperience	83.032	43.934	50.957	54.709
	(183.731)	(184.409)	(184.564)	(184.360)
TVET	1,375.910	1,474.592	1,336.594	1,303.593
	(4,067.086)	(4,093.369)	(4,097.168)	(4,090.523)
HigherEd	-626.253	-1,379.925	-1,169.578	-1,232.182
	(4,093.885)	(4,106.734)	(4,111.613)	(4,107.985)
Vientiane	-1,421.573	-1,440.813	-1,176.286	-1,478.761
	(3,631.798)	(3,649.568)	(3,655.056)	(3,652.867)
Constant	-9,073.660	-7,951.796	-5,917.760	-7,314.122
	(12,176.905)	(12,227.971)	(12,176.413)	(12,205.592)
Observations	361	361	361	361
Adjusted R-squared	0.21	0.20	0.20	0.20

Standard errors in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%
Industry controls are not shown for brevity.

The Impact of Board Structure on Thai listed Companies Survival

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Abstract

Corporate Governance belief generally employs to recreate an essential role for the business bankrupt determination. The good concept of the corporate governance will have an effect on the value added of both businesses and shareholders. Our research aims to examine the relationship between the corporate governance regarded to the board structure and the bankruptcy of Thai listed companies based on the agency theory. In this paper, we estimate 272 companies consisting of 250 survivors and 22 non-survivors. Board structure mostly consists of the board size, the proportion of board independent and audit committee, dual leadership and ownership concentration including audit reputation, the number of audit committee and company age. We use survival analysis by Cox proportional hazards technique to find a predictable bankrupt pattern with our hypotheses. Our results indicate that board size, proportion of board independent, proportion of board committee, leadership structure, ownership concentration and company age are statistically significant to decreasing hazard of IPOs survival. Otherwise, only ownership concentration has an increasing risk effect of IPOs survival.

Keywords: Corporate Governance, Survival Analysis, Board Structure

INTRODUCTION

Most of business operations today are in capitalism with the main goal of earning maximum profit (Smith, 1776). Among higher competition, the companies, therefore, have been pressured from various factors which are driving forces causing them to do any possible ways in order to achieve their intended goals. This may not reflect the actual economic events including violations of corporate governance.

Thailand has improved its systematic form of business operation into the Western model for the appropriation (Keong, 2002; Khan, 2004) after experiencing the major crisis in the year 1997 which caused the bankruptcy for almost 50 of the listed companies in the stock exchange market as a result of the weakness of the business operation without corporate governance (Dhnadirek & Tang, 2003; Limpaphayom & Connelly, 2004). The concept of corporate governance is defined simply as "corporate governance is the relationship between various parties used to make decisions in the operation and direction of the company". The structure of corporate governance consists of three primary parties of people; shareholders, board of directors and the executive. Their roles involve groups of secondary people including stakeholders, audit committee and the independent committee (Monks & Minow, 2008). The Stock Exchange Market of Thailand has introduced 15 principles of the corporate governance for the listed companies in 2549. They are comparable to the corporate governance of The Organization for Economic Co-operation and Development (OECD Principles of Corporate Governance, 2004) which is a model of law and practice of the corporate governance of the government and the Stock Exchange. Many researchers have pointed out the mixed form for the proper corporate governance for developing countries. Besides making the capital markets to have high quality, it also reassures the investors to believe that the company will effectively exist (Roberto and et al., 2008).

This study focuses on the impact of the structure of IPOs (Initial Public Offering) referring to a company that is offering new shares to the public for the first time. The company may require the budget or want to distribute its shares to the general public. The data on the structure of the Board of IPOs are clearer and more certain than of those which have been in the stock market before. The survival analysis methods are used to analyses the impact of the board structure because of the belief that every company would want to operate its business in the long term. Also this method is effective in the analysis and is not vague (Nongnit, 2012).

This paper is structured as follows. First, we review previous studies about the board structure and the corporate governance for developing hypotheses. Second, we present our data and methodology. Third, we present our empirical results and interpret. Finally, we offer our discussion and conclusion for development in future research.

LITERATURE REVIEW AND THEORETICAL DEVELOPMENT

This study considers the impact of the structure of the 5 major committees according to the principles of the good corporate governance of listed companies on the Stock Exchange of Thailand (SET) as well as the NYSE, Nasdaq and ASX (Nongnit, 2012).

Board Size; the board is vital to the company and has a role in determining operational policies, rules and regulations of the company. It includes paying attention on compliance according to the corporate governance principles (Suchontha, 2009). Based on the factor regarding to the amount of the board, although there is no clear definition of the number of the appropriate board, the large size of the board committee may lead to the effective

operation (Goktan, Kieschnick & Moussawi, 2006) because the board will acquire an adequate consultation before deciding on any aspects of company businesses. In the study of Haniffa & Hudaib (2006), it is found a correlation between the board size and the company's operating results. It shows that a company with a large board size will make its performance better due to a wide range of experiences and opinions causing the companies to make the best choice. We find studies about small board relevant with corporate governance such as studies of Fich & Stezak (2008) which found that a small committee will able to avoid the failure of the company better than the company with the larger board(Roberto at el., 2008; Susan at el., 2002; Chiang & Chia, 2005 Coleman, 2007; Xie et al., 2003 and Mohamed, A. et al., 2009). However, a study of Suchontha (2009) found that the size of the company board relates to the company's operating results in a negative way as same as the study of Hermalin and Weisbach (2000). Yet, the study of Peerawan (2007) found that board size does not affect the operation of the company.
Hypothesis 1: Size of IPOs affects the bankruptcy of the listed companies on the Stock Exchange.

Board Independent; it examines, balances the company administration, controls decisions and eliminates conflicts on the interest between the shareholders and the management department according to the agency theory of the administrators more efficiently than the boards who are not independent. The theory states that people are motivated to advance for personal interests (Letza et al. 2008). The board from external parties will act to protect the interests of all shareholders in all groups who are unlikely to stand up to fight with the executive director and to efficiently examine the operation of the administrative department (Helen, On & Momica, 2010) because they have to keep their reputation. This causes the board independent to become the essential variables of the corporate governance which will be able to reduce the problems from the representatives. From the study, Suchada (2007) found that a higher proportion of board independents can reduce the problem of the agents and make the operation better (Peerawan, 2007; Ho & Wong, 2001; Jintawit, 2010; Roberto and et al., 2008).
Hypothesis 2: The proportion of board independent of IPOs affects the bankruptcy of a company listed on the Stock Exchange.

Audit Committee; it has an activity is to monitor business governance possible for such businesses to have a good internal control and to create an increased quality auditing (Al-Ajmi, 2009), including the need to abide by the requirements of the Stock Exchange of Thailand. Due to it is an independent organization that provides support and action on behalf of the Board of the company to verify the financial information presented to the shareholders and other stakeholders. It also monitors the risk management system, internal control system and internal audit system including communications with the auditors of the company in order to comply with the principles of good management efficiently. The organizations with the appointed audit committee will prepare more reliable financial statements (Beasley & Salterio, 2001; Vafeas, 2005). The audit committee is directly responsible for appointing, determining the remuneration and supervising the work of the external auditors. In Thailand, the audit committee should have members who are independent from the administration department at least 3 in 5 five people (The Stock Exchange of Thailand, 2006). This regulation will reduce the chance that the audit committee will be interfered by the groups of the major shareholders.
Hypothesis 3: The proportion of the Audit Committee of IPOs affects the bankruptcy of the company listed on the Stock Exchange.

Leadership Structure, the chairman of the Board should be chosen from independent committee and should not be the same person as the Managing Director (CEO) in order to divide their responsibilities in policy determination, regular administration (The Stock Exchange of Thailand, 1999), and a management system with balanced power (Sureeya, 2010). The company, therefore, is able to determine the structure of the company appropriately. The good principle is that the chairman should not be combined his/her position with that of CEO (Chief Executive Officer). Furthermore, the Chairman should be an independent and should not be the representative of the major shareholders or stakeholders. This may affect the operations of the company. If the President and the Chairman is the same person, it will cause the administrator to work without consideration in the best interests of the shareholders or stakeholders. This causes damages to the company and its operations (Suchontha, 2008). There is a study of Coleman (2007) which found that the combined position of the chairman and CEO has the negative relationship to the value of shareholders of the listed companies in the Stock Markets of South Africa, Kenya, Ghana and Nigeria. According to the study of Haniffa and Hudaib (2006), it found the relationship with negative results of the operation (Peerawan, 2007 ; Suchontha, 2551; Suchada, 2007) which is consistent with the study of Berstein (2004) which found that companies with a separation of the chairman and CEO had better performance than that of the combined position. Management of the committee who is not in the chairman position related to the negative direction on the financial problems (Susan at al., 2002; Abdullah, 2006).
Hypothesis 4: the combined position of Chairman and CEO of IPOs affects the bankruptcy of the company listed on the Stock Exchange.

Ownership Concentration; according to the agency theory which plays a role in optimizing the management of the company and regulators (Arthur et al., 1993). It may cause the representatives who are the majority shareholders have the right to give the adequate vote to control the company (Controlling Shareholder). For example, the family business with the shares concentration has the conflict of interests between the major shareholders with sufficient voting rights to control the company and the minority shareholders instead of that of between the board and the shareholders. This causes the actions of the board to consider the interests of the major shareholders as important. The concentration of shareholders affects the negative potential of the company (Helen, On & Momica, 2010) and also increases the risk of bankruptcy of the company in Thailand before the actual bankruptcy (Thanida, Robert & Theo, 2011). The shareholding structure in the concentration form is often dominated by the large shareholders who have voting rights sufficient to control the company (Hutchinson & Gul, 2004).
Hypothesis 5: Structure of ownership concentration affects the bankruptcy of the company listed on the Stock Exchange.

Number of Meeting; the audit Committee is the major mechanism that shall be established in order to provide the company's good corporate governance. The qualification of the audit committee, general meeting, duties and responsibilities must ensure that the financial report is released appropriately and correctly (Padthama, 2010). For the number of annual meetings depends on the size of company and assigned responsibility with the average 4 times a year. There may be a special meeting of the audit committee if it is requested by the audit committee, the auditors and the internal auditors or the chairman of the company for the issues that need to be discussed together (Stock Exchange of Thailand, 1999). Although there are no specific rules for determining the number of meetings each year, the company will have to disclose the number of attendance of each member of the committee (Corporate Governance, 2005). The meeting is particularly important in data exchange and interaction of

the committee which increases in the quality and quantity of information helpful in taking care of the company. Also it reduces reliance on external information and increases the independence of the committee (Martin, 2005). The study of Xie at al. (2003) found that the number of meetings of the audit committee is associated with earnings management in the negative direction, if there is a large number of a meeting (Abnormal Board Activity) or special meetings of the company. This may demonstrate problems and may inevitably reflect the bankruptcy of the company (Vafeas, 1999; Helen, On & Monica, 2009).
Hypothesis 6: The number of meetings affects the bankruptcy of a company listed on the Stock Exchange.

Auditor Reputation; the comments of auditors can provide assurance on the financial statements to the information users. According to theory, the auditor will work for the benefits of the shareholders mainly and to alleviate the agency problem between the agents and the representative. Therefore, it is possible that the board will employ the auditor with high standard quality service. The use of the audit service of the big firm will result in the relationship causing the higher quality of the auditing than that of the small firm (Al - Ajmi, 2009), which can attract investment. When the large audit firm has provided the auditor with high quality, it is taken as the method for preventing earnings management.
Hypothesis 7: The size of the audit firm affects the bankruptcy of the listed company on the Stock Exchange.

Trading Signs, showing the signs (NP, NR, H & SP) up shows the temporary ban on trading securities in the cases of waiting the information from the company, having the news and information that affects the rights and interests of the shareholders, waiting for approval of the fact that the company has to clarify to the Stock Exchange, violating or failure to comply with the laws, failure to submit the financial statements to the Stock Exchange in time, delivering financial report late for 3 times and being in consecutive revocation and being in the period of improving the status. (Stock Exchange of Thailand, 2006), these cases show a lack of discipline on the corporate governance which may affect the bankruptcy of the company.
Hypothesis 8: Showing signs about trading ban affects the bankruptcy of a company listed on the Stock Exchange.

Company Ages; The older companies will have more experience in learning model development which makes companies to survive rather than the younger companies which have a high risk of failure due to lack of experience in the operation. The age of the company can indicate a financial failure (Rommer, 2005; Hensher, Jones&Greene, 2007).
Hypothesis 9: The ages of the company affect the bankruptcy of the listed company on the Stock Exchange.

DATA AND METHODOLOGY

Data and Sample

This study used data of the listed IPOs during 1992-2007 and followed up their performance until the year 2012 in the SET, excluding companies listed on the MAI and the financial institutions because their financial statements differ from the other groups and the companies that do not have inadequate information. Consequently, there were 272 sample companies (250 companies are survivors and 22 companies are non-survivors). The collected data are the secondary data of the fiscal year and the annual statement (Form 56-1). For non-survival, data listed is revoked from 1992 to 2012 (The Stock Exchange of Thailand, 2012).

Table 1: Composition of Sample**.**

Stratified by GICS industry sector		
GICS industry sector	**Number**	**Percent (%)**
Service	51	18.75
Property & Construction	73	26.84
Agro & Food Industry	25	9.19
Consumer Products	13	4.78
Technology	37	13.60
Resources	25	9.19
Industrials	48	17.65
Total	272	100.00

Note: N is the number of companies. Percent is the proportion of number of company group as total number of companies.

Stratified by Status		
Status	**Number**	**Percent (%)**
Survival	250	91.91
Non-Survival	22	8.09
Total	272	100.00

Note: N is the number of companies. Percent is the proportion of number of particular status group as total number of companies.

Analytical Approach

A technique called Cox Proportional Hazard (CPH) or Cox Regression is one of the techniques of survival analysis that is a class of statistical methods for studying the incidence and timing of events (Allison, 2010). In a study of the relationship between the dependent variable and independent variables, one or more of the available data and the time involved, is incomplete or the censored data developed by Cox (Cox, 1972) with analysis, like the analysis of multiple regression in the Cox Proportional Hazard model. The parameters as a function of the risk of the event of interest at time (t) and independent variables can be either quantitative variables or variables that do not depend on time, and do not have a normal distribution. The characteristic of the variable of the corporate governance is the abnormal distribution (Susan et al., 2002). Also, this technique avoids the group of the population who has a bias (Shumway, 2001). The previous to studies has in use the Cox proportional hazards model in survival analysis consist of Turetsky & McEwen (2001), Lamberto & Rath (2008) and Nongnit (2012).

Table 2: The Variables use in the study

Variable code	**Variable name**	**Definition of variable**
STATUS	Dependent variable : Survival or Non-survival	State of IPOs listed from 2535 - 2550 and followed their performance until the year 2555 by the company to remain on the market = Survival (recorded a value of 1) and company out of the market, being revoked = Non-survival (recorded a value of 0).
BD_SIZE	Board size	The total number of the board members.
BD_INDP	Proportion of independent directors	Proportion of independent directors per the total number of the members of the board committee.
BD_AUDIT	Proportion of audit committee	Proportion of audit committee per the total number of committee members.

DUAL_LS	Dual leadership structure	If chairperson and CEO are the same person, it is recorded a value of 1, 0 otherwise.
TOP5	Top 5 shareholders	Proportion of shareholder by Top 5 shareholders
MEETING	Meeting of audit committee	The number of annual meetings of the audit committee.
BIG_FOUR	Auditor reputation	The accounting company that IPOs rely on examination of their financial information. It is one in four major companies in Thailand. The Big 4 accounting companies include Ernst and Young, KPMG, PWC and Deloitte Touche Tohmatsu.
SIGN_LATE	Trading signs	To sign up the temporary trading ban of listed securities. Each time takes the duration not more than one round of trading according to the SET. Trading signs include NP, NR, H and SP, recorded a value of 1, 0 otherwise.
TIME	Company age	The number of years that IPOs have been in the Stock Exchange listed during the years 1992-2007 and followed up their operation until the year 2012.

EMPIRICAL RESULTS

This paper focus on study the effect of interesting factors including board size, proportion of board independent, the proportion of the audit committee, dual leadership structure, ownership concentration, the number of audit committee meeting, audit reputation, trading sign and company age, to survival likelihood of new economy initial public offering companies (IPOs). Basically, some of these factors often affect the IPOs survival based on the asset survival theory such as board structure, so we seek for a strong evidence to support the theory by empirical study. Therefore, empirical measurement is very useful for the IPOs survival data with enough sample companies; we used Pearson correlation coefficients, and Cox proportional hazard model computation to explain the empirical measurements.
The Pearson Correlation Coefficients computation is the relationship measurement across the variables. The results of the Pearson correlation coefficients are shown in table 3 to represent a weak relationship between the variables with the problem of multicolinearity.

Cox Proportional Hazards Model Computation

This paper employs the Cox proportional hazards model to estimate the risk coefficients for IPOs survival likelihood based on each corporate governance variables then we used hazard ratio value or regression coefficient for each variable to explain the effect of IPOs survival. The estimation results are shown in table 4.

The Cox proportional hazards model result presents the regression coefficient(β), standard error, Wald chi-square for testing the relationship between time and all the covariates in model, p-value tests with the null hypothesis where regression coefficient is equal to zero, and hazard ratio. We compute hazard ratio to estimate the risk of IPOs survival by the exponential value of regression coefficient, signed e^{β} or Exp (β), where β is regression coefficient of Cox proportional hazard model. There are three levels of the result interpretations of hazard ratio. First level, hazard ratio is equal to one that the variable covariate has no risk effect of IPOs survival based on the variable. Second level, hazard ration is more than one that the variable covariate has more rapid hazard timing of IPOs survival. Last level, hazard ratio is less than one that the variable covariate has a low risk timing of IPOs survival.

Table 4: Estimation Results of Multivariate Cox Proportional Hazards Model of the Entire Sample

Covariate	Coefficient	Standard error	Wald	p-value	Hazard ratio
BD_SIZE	-.315**	.141	5.004	.025	.730
P_BD_INDP	-9.175**	3.558	6.648	.010	.000
P_BD_AUDIT	-21.258*	6.007	12.522	.000	.000
DUAL_LS	-1.700**	.741	5.256	.022	.183
TOP5	.062*	.020	10.017	.002	1.064
BIG_FOUR	.947	.906	1.092	.296	2.578
MEETING	.042	.088	.232	.630	1.043
AGE	-.275*	.066	17.440	.000	.759
SIGN_LATE	14.164	113.100	.016	.900	1416909.217

***. Correlation is significant at the 0.01 level.**
****. Correlation is significant at the 0.05 level.**

Table 3: Pearson Correlation Coefficients

Variable	STATUS	BD_SIZE	BD_INDP	BD_AUDIT	DUAL_LS	MEETING	TOP5	BIG_FOUR	SING_LATE	TIME	PAR	CUR	TAT	ROA	DET	ASSET
STATUS	1	-0.022	0.03	.218**	0.082	0.081	-.333**	-.163**	-.303**	.221**	0.011	0.025	0.059	-0.007	-0.005	-0.021
BD_SIZE		1	.296**	-.659**	-0.035	.177**	0.06	.185**	0.006	0.074	0.084	0.025	.215**	.273**	-0.031	.246**
BD_INDP			1	-.390**	-0.053	.191**	0.004	0.006	-0.009	-0.032	0.049	0.075	-0.03	0.034	-0.043	.310**
BD_AUDIT				1	-0.02	-0.065	-0.082	-.141*	-0.106	-0.012	-0.071	-0.028	0.015	-.172**	-0.054	-.188**
DUAL_LS					1	0.009	-0.068	-0.037	-0.009	-0.054	-0.065	-0.056	-0.101	-0.024	0.086	-0.083
MEETING						1	0.071	0.106	0	0.021	0.097	-0.047	0.049	-0.054	-0.04	.234**
TOP5							1	.270**	0.07	-0.106	0.046	0.045	.198**	0.11	-.136*	0.084
BIG_FOUR								1	-0.035	-0.033	-0.063	-0.077	.155*	0.086	-0.05	0.012
SING_LATE									1	.417**	0.09	0.06	-0.043	-0.041	0.095	0.043
TIME										1	.129*	0.087	0.09	0.059	0	-0.019

***. Correlation is significant at the 0.05 level (2-tailed).**

****. Correlation is significant at the 0.10 level (2-tailed).**

Our result shows the negative coefficient of board size (β= -.315, $p < .05$), indicating that large board size has a low risk of IPOs survival. Our result is similar to that of Fich & Stezak (2008) but is different to that of Peerawan (2007). This study represents that board size covariate is significantly related to operation of company in IPOs survival. The hazard ratio of board size (BD_SIZE) is 0.73 and significant which represent the probability of failing decreases by 27 percent. So we find strong evidence supported for Hypothesis 1.

The proportion of board independent (P_BD_INPD) is negative estimated coefficient (β= -9.175, $p < .05$), with the hazard ratio is zero. The proportion of board independent has a decreased risk of IPOs survival while increasing board independent, so we accept Hypothesis 2. Our result of variables is similar to that of Peerawan (2007) and Ho & Wong (2001). The hazard ratio of the proportion of board committee (P_BD_AUDIT) is zero, which negative estimated coefficient (β= -21.258, $p < .01$). The proportion of board committee has a decreased risk of IPOs survival while increasing board committee. Our result is similar to that of Vafeas (2005); we thus find support for Hypothesis 3.

Our result indicates the negative coefficient of dual leadership structure (DUAL_LS), indicating that chairperson and CEO are the same person in the structure. The probability of risk is 81.7 percent which hazard ratio is 0.183, so we accept Hypothesis 4. Our result is similar to that of previous studies such as Susan at al. (2002) and Abdullah (2006).

The ownership concentration (TOP5) has a positive coefficient (β= .062, $p < .01$) and has negative potential effect of the company (Helen, On & Momica, 2010) and increases the risk of survive of the company in Thailand before the bankruptcy (Thanida, Robert & Theo, 2011). We find support Hypothesis 5. The hazard ratio is 1.064, indicating that opportunities is increasing risk of IPOs survival by about 6.4 percent.

Finally, company age (AGE) indicates a negative coefficient (β= -.275, $p < .01$), which low company age has a higher risk to fail than high company age. According to the reality of high company age has more experience in IPOs operation than low company age while decreasing risk of survival (Rommer, 2005; Hensher, Jones & Greene, 2007). The hazard ratio is 0.759, indicating that high IPOs age has a decreased risk of IPOs survival at about 25 percent.

While the Auditor reputation, Number of board committee meetings and Trading Sign variable are not significant when the IPOs chance of survival. Our results do not support Hypothesis 6, 7 and 8. But all of the variables are sign of situations to present about the problem of IPOs, which is important for survival even if variables no effect the IPOs likelihood of survival.

DISCUSSION AND CONCLUSION

Our study pursues to examine the relevance between the corporate governance of the board structure and the survival of IPOs while the variables based on the agency theory. We employ survival analysis model by using Cox proportional hazard technique to estimate 272 IPOs that exclude financial group. There are 250 survival companies and 22 non-survival companies. Our results, indicating that board size, proportion of board independent, proportion of board committees, leadership structure, ownership shareholder and company age, are statistically significant with decreasing hazard of IPOs survival. Otherwise, only ownership shareholder has an increasing risk effect of IPOs survival.

The finding of board size is consistent with Haniffa & Hudaib (2006) relation between board size and Performance of Malaysian Listed Companies. Because the performance of the company can refer to situation of survival followed study of Fich, E. M., and S. L. Stezak (2008) showed that small board size has decreasing bankruptcy of company than big board size. However, paper of Peerawan (2007) found that relationship of board size and performance of industrial group company is not effected, causes the difference from characteristics of the group company The result of the proportion of board independent is consistent with Suchada (2007) and is decreasing the agency problem and affects to increasing performance of company. In the future, we will study the relevant of the proportion of board independent and Survival Company by comparing with old rules under Securities and Exchange Commission (SEC), which not less than three people with board and new rules to increase the proportion of one in three of the board. While the rules under SEC specify the proportion of board committee is not less than three persons which not less one person is financial specialist. Our finding about the proportion of the audit committee is consistent with Beasley & Salterio (2001) showed that the organization which has audit committee will make believable annual report. The result of dual leadership structure is consistent with Coleman (2007) showed the problem of agent when the chairperson and CEO are the same person of company in South Africa, Ghana, Kenya and Nigeria. Our finding of ownership concentration is consistent with Thanida, Robert & Theo (2011) presented concentration of shareholders increased risk of bankruptcy of the company in Thailand before the bankruptcy when financial crisis. Finally, the finding of company age is consistent with Hensher, Jones & Greene (2007) in the relation between age and failure of finance which age refers to experience of the company. Because the high age of the company has strong experience than that of low age.

For future research, we will separate the data of board size to be small, medium and large size for examining the relevance of survival IPOs (Nongnit, 2012). The proportion of board women is interesting variable that may have effect of survival IPOs so we will use this variable for empirical result too.

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Practices in managing human resources in Japanese and American companies in Poland: comparison based on case study research

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Abstract

The previous research proved that culture-specific factors are important determinants of human resource management (HRM) policies and practices. However, despite numerous research on the cultural influence, only few of them investigate how home-country culture influences the policies and practices in foreign subsidiaries, and the existing studies are mainly concentrated on foreign enterprises in Western Europe, the United States, or Asian countries. This paper aims fill this gap by investigating the relationship between home-country culture and the practices of human resource management in subsidiaries of Japanese and American companies operating in Poland.
The analysis based on case study research conducted in six enterprises allowed to identify practices in HRM areas such as remuneration, training and development, and interactions in workplace. During the study the research methods, such as interviews with managers and document analysis, were used. In order to find how Polish employees perceive human resource management in the researched enterprises, a survey was conducted among 344 employees in total. The analysis of the results from previous studies on national culture and HRM, and comparisons with results obtained, allowed to identify how Japanese and American culture determines the practices in researched companies.
The findings show that, even though some aspects of HRM are related to country-of-origin and can be attributed to different practices between Japanese and American management models, the degree of implementation of the practices from home-country culture is not always the rule. The findings of the study support the argument that HRM practices are prone to host-country cultural influences but the strength of the influence depend from business strategy.
The proposed paper is useful for both researchers and practitioners as it will be an active attempt to investigate the effects of national culture on HRM and could provide guidance managers into setting up HRM practices in Polish based subsidiaries.

Introduction

The studies on international management provide strong evidence that practices in different areas of human resource management (HRM) are strongly rooted in given national culture[1]. Moreover, research carried out in enterprises from different countries operating in one host-country show the differences in HRM policy and practice (Brewster, Hegewish, 1994; Rosenzweig, Nohira, 1994) dependent on the country-of-origin of the companies. However, is not always the rule that these practices are implemented in foreign subsidiaries. It depends on the strategic options the companies choose, from ethnocentric through polycentric to global strategies (Perlmutter, 1969). These strategies vary in the degree of integration of the parent company and the strength of regional influences. According to Beechler and Yang (1994), there are three groups of factors which influence the transferring of HRM practices from the home-country to the subsidiaries. First, the national culture of the home-country and the extent of its influence on management plays an important role. The second group of factors are those associated with the host country, such as national culture, labour market condition, industrial relations. The third group includes factors connected with the company and the strategic roles of subsidiaries, and the dependence of the parent company on subsidiaries to provide its resources.
Despite numerous research on the cultural influence, only few investigate how home-country culture influences the policies and practices in foreign subsidiaries, and those which exist are mainly concentrated on foreign enterprises in Western Europe, the United States or Asian countries. Very little research has been done on extent to which the home-country practices have been implemented in Eastern European countries, especially in Poland.

The current study has attempted to fill this gap by researching the extent to which the home-country culture influences human resources management in foreign subsidiaries located Poland. Polish culture can influence the potential transferability of HRM practices, especially from culturally distant countries like Japan or the US. The important question which arises, is whether country-of-origin influences play an important role in foreign enterprises operating in Poland, and which factors can influence the transference of HRM practices.

The main purpose of the current study was to investigate the relationship between home-country culture and practices of HRM in subsidiaries of Japanese and American companies operating in Poland. This paper presents a comparative study of the effects of national origin on the practices of chosen areas of HRM. The study adds to the debate on transferring HRM practices between nations, especially from parent company to subsidiary.

A qualitative case study was considered as the most appropriate method of analyzing the impact of home-country culture. The research has also drawn from the existing knowledge on the national culture as a determinant of HRM policy and practice.
The comparative research was conducted in two group of companies: American and Japanese. The countries-of-origin have been chosen due to the fact that the American and Japanese companies explicitly differ in HRM policies and practices. Japanese

[1] More about cultural influences on work-related attitudes, values, and HRM practices and policies: Schneider, 1998; Trompenaars,1996; Gatley et al.; 1996 Hofstede, 1980.

style of management is characterized as paternalistic and rooted in Japanese pre-war society (Rose, Kumar, 2007). Japanese companies are group- and behavior-oriented, while American ones are more output-oriented (Yen, 1995). American model of HRM is based on appreciation and promoting of individual performance and development (Hanasen, 2003).

In order to investigate the transfer of Japanese and US based practices of HRM to Polish subsidiaries, this study first examined the differences in chosen areas of HRM in Japanese and American companies. Next, I analyzed the prevalence of these practices in the researched companies, in order to identify how closely they resemble the practices used in the home-country. The examination was divided into three HRM areas: development of policies and practices, remuneration systems, and employee relations in a workplace.

Human resource management in Japanese and American companies
The previous studies have found that there are differences between HRM in American and Japanese companies. First of all, the difference is in the concept of a HRM department (Schuler, 1994). In American companies, HRM departments play an important role and have high status in the company. In contrast, in Japanese companies managing people is mainly seen as the responsibility of line managers.
American companies have very high, comparing to those from another countries, training expenditure (Tayeb, 2005). American companies use clear promotional criteria, career paths, and training objectives (Hansen, 2003)

Japanese enterprises focus on training, usually within the company (Rowley, Benson, Warner, 2004; Beechler, Yang, 1994), and employees are encouraged to upgrade their skills (Yeung, Vong, 1990). The idea of on-the-job training is widespread. Very often training is informal, accomplished by daily contacts with supervisors or older employees. Another popular training technique is job rotation (Haghirian, 2010). The promotion criteria in Japanese companies are based on seniority (Yang, 1992).
A seniority-based wages and promotion system is one of the core principles of Japanese HRM (Rose, Kumar, 2007). In Japanese companies more emphasis is also put on loyalty (Yeh, 1995). Bonuses systems are based on group effort rather than individual performance (Graham, 2009).

In American companies performance appraisal is one of most important management tools (Gomez-Mejia et al., 2007) which is considered the basis for the employees' compensation.

In Japan there are no barriers between blue and white collar workers. There are few cases of different dining rooms, segmented car parks, and other privileges. Furthermore, open-space offices accommodating both managers and other office employees emphasize the egalitarian nature of Japanese management system (Tayeb, 2005).

Consensual decision-making style is still a popular practice in contemporary Japanese enterprises (Onishi, 2006). Employees from the operating levels are also encouraged to take part in the decision-making process through for example, putting the new ideas or propositions for changes in a 'suggestion box,' or taking part in quality circles (Tayeb, 2005). However, the decision was taken the commitment is expected and day-to-day management style is rather autocratic (Yan, 2003). Japanese managers, in contrast to the American ones, are seen as having more empathy in dealing with subordinates (Yen, 1995). However, the communication style of the American managers is more direct, explicit, and informal than Japanese ones (Yen, 1995).

Research methodology

The data for this study were gathered as part of a larger project, which used both the quantitative and the qualitative methods.

The key research question was the extent to which the HRM practices in subsidiaries of American and Japan companies operating in Poland are determined by the home-country culture.

The research methodology is based on case studies relying on multiple sources of data, including interviews, direct observation, internal documents, and surveys carried out among managers. The case study model was chosen because this approach is better for exploring complex qualitative relations than using only a survey (Brewster, Tragaskis, Hegewisch, Mayne, 1996,). The research was conducted in six companies operating in Poland: three from the US and three from Japan. The selection criteria for choosing companies were: headquarters located in Japan or United States, and the type of business activity. To reduce the differences in HRM resulting from the type of companies research studies have been carried out in manufacturing companies.

Data was collected during semi-structured personal interviews, carried out mainly among the human resource managers/professionals and CEOs or other top executives. At least one person was interviewed in each company. Each interview lasted between one and a half and two and a half hours. When possible, the interviews were recorded for later revision and reanalyzing. Qualitative analysis of the interview data focused on identifying major current HRM practices, how they depend on the parent company, and to which extent they are determined by home-country national culture.

Moreover, direct observations were also conducted to gain supplementary information about human resource management, such as communication with employees, relationships in the company, and work organization. The research was also supplemented by document analysis. The chief sources of data were both internal documents (for example, labor regulations, documents used in appraisal systems, organizational charts), as well as public information about the company (for example, corporate websites, leaflets, or folders).

Additionally, to examine the degree of impact of each factor on human resource management in the researched companies a questionnaire including 12 items was developed.

The survey covered a total of 344 employees: 291 employed in US companies, and 23 in Japanese. The survey was conducted in all groups of employees: administration and production workers and managers. The surveys contained questions about the personal characteristic of respondents such as: age, duration of employment, position in organization, level of education.

Next, the employees were asked to evaluate the following factors in their company on a five-item scale, with 1 corresponding to "not at all" and 5 to "totally in accordance" . Table I displays the mean responses for the US and Japanese subsidiaries.

Table I. The mean score for employees' evaluation of situation in company

How the statement corresponds to the situation in your company:	**Mean score**	
	Japanese companies	**American companies**
All employees have the same privileges irrespectively to their position	2.29	2.90
Differences in income result from contribution and work performance, rather than position	2.30	2.64
Relationships are based on friendly interaction between employees, rather than competition	3.78	3.52
Salary is based on the achievements of the team, and not on individual performance	2.99	3.25
Superior-subordinate relationship is open, rather than formalized and hierarchical, there is a mutual exchange of experiences	3.47	3.45

The employees were also asked to evaluate the opportunity to receive bonuses, also on a 5-item scale, with 1 corresponding to "never" and 5 to "very likely". The questions concerned: staff development, remuneration components, and participation in decision-making. The mean of responses for Japanese and American subsidiaries is presented in Table II.

Table II. The mean score for employees' evaluation of HRM practices

In your company, how do you evaluate the opportunities for:	**Mean score**	
	Japanese companies	American companies
development	2.49	3.38
advancement	2.23	2.85
pay for performance	2.54	2.83
welfare package	2.90	3.09
participation in the profits	1.72	2.37
participation in decision-making	2.30	2.46
job rotation	2.71	3.17

Results

Next, using the results from survey and those obtained during interviews and document analysis, we compared the HRM practices in researched Japanese and American companies.

First, the main differences between the companies was the importance and position of the HRM department. In subsidiaries of US companies, the significance of human resources was stressed by statements about the importance of employees in business strategy and the importance of HR bodies. In two out of three researched American companies, HR managers took part in important meetings regarding strategy.

In all American companies, HRM was highly formalized. There were procedures and regulations concerning the compensations, employee development, and appraisal system.

In contrast, Japanese companies did not employ a HR manager or even a specialist. The employee management was the duty of the production or finance manager or the director of the company. This indicates that managing was treated as less important, compared with, for example, production or quality management. Also, there were no formal regulations in different HRM departments. Next, the differences between the two groups of companies were analyzed.

The differences in training and development in companies were analyzed in 4 aspects and concerned:

- The role of training
- Training opportunities
- Contents of the training
- The internal recruitment and career path
- The development of efficiency of training evaluation

The analysis of investing in human resources places US companies in the leading position. All companies from the US recognized the importance of employee training and development as the source of competitive advantage and the way to meet the customers' expectations. Whereas in Japanese companies, the investments in employee development were reduced to minimum. In the case of American companies, investing in employees can result from the significance of this field in the US. However, Japanese companies also focus on training, mainly within the company. Nevertheless, the results of research in Japanese subsidiaries located in Poland have not concurred this practice.

Consequently, in two out of three researched American companies, development programs were key for the employees. In all of them, the opportunities for career-development within the company were also highlighted in the company regulation and during interviews – the recruitment process started from internal recruitment to give the current employees the chance for promotion and transfers to higher positions. Two of the Japanese companies declared that the internal recruitment is important, but no formal regulating procedures exist.

The big difference between the two groups of companies was the in amount of training and the possibility of staff development. Japanese companies reduced the training opportunities to those which are required by law or essential for the job. In contrast, in American companies employees had the opportunity to attend language courses, training programs developing managerial skills or improving job-related attitudes. Also, the results of the survey confirmed that in American companies employees have more opportunity both for training and internal advancement.
In two of the American companies the effectiveness of training is closely assessed and more formalized then in Japanese companies, where no formal evaluation system was introduced.

The differences in the reward systems between American and Japanese companies were analyzed in 3 aspects:

- The basis for determining the wages
- The pay for performance
- The benefits system
- The role of line managers in determining remuneration

The American companies more frequently used additional incentives. Furthermore, in American companies, the base salary was more frequently linked to performance than in the Japanese ones. A formalized appraisal system used to improve the results of performance of individual employees is also characteristics for the HRM in the companies from the US. The salaries in Japanese companies were based mainly on market comparison. Employee performance was less important than the evaluation of employee behaviors by line managers or, more often, managers on higher positions. Also, the results of the survey confirmed that Japanese companies used performance as the base for salary to a lesser extent.

American subsidiaries more often used additional bonuses and benefits. The survey also confirmed that the employees participate in the profits more frequently. Furthermore, the American subsidiaries more readily offer welfare packages, which is contradictory with the results of previous research on HRM practices, stating that this kind of additional compensation is more popular in Japanese, rather than in U.S. companies.

The role of line manageress and their influence on wages of their employees was bigger in American enterprises, where the line manager took part in performance appraisal and decided on the changes in wages or the level of additional benefits. In contrast, in Japanese companies the decision was in hands of senior management. They most often take decision about the wages.

The analysis of differences in employee relations consisted of three different aspects:

- Internal communication
- Scope and ways of participation
- Importance of individual or team work

The differences between the host-country cultures were clearly visible in internal communication. In American companies, communication was more open and the relations less hierarchical. Americans readily use the concept of “open door”. The CEOs have special days during the week, when employees can come and speak freely about their problems. The employees and managers very often address each other by name. However, the results of the survey indicate that the work-relationships are also seen as open in Japanese companies. This can be ascribed to the fact that Japanese managers working in Polish subsidiaries listen to the comments of employees; however, the relations were more formal. On the other hand, employees feel that the relations are equal because of organization of work, for example the office space was organized in accordance with Japanese rules – open space where administration staff work together with managers to emphasize the egalitarian nature of Japanese management system in employee evaluation. However, employees of Japanese companies more often noted the special privileges connected with high position in the organizational hierarchy.

The opportunity to participate in decision-making was more appreciated in American companies. It is due to the fact that American companies, in contrast to the Japanese ones, had formal systems of suggestion, which encourage employees to submit their comments or ideas of improvement.

More cooperative employee relations were introduced in Japanese subsidiaries, where individual achievements are less important than in American companies. It is the consequence of the performance appraisal systems in American subsidiaries, which evaluate mainly the individual results of employees. Two of them stressed the emphasis on internal competitiveness during the interviews. Furthermore, in one of the American subsidiaries the best employees were distinguished by posting their names and photos. In another company this practice was used only once, because of unfavorable feedback from the staff.

Conclusions

The results of research confirmed the influence of home-country on human resource management practices. In the case of the examined companies, the country of origin was the source of differences in human resources management; some of these differences may be explained by cultural diversity of home countries, for example highest level of employee training and pay for performance was noted in the American companies, and more collectivistic approach to work organization in Japanese subsidiaries. The results are consistent with previous research carried out in other countries, which show the difference in HRM practices in subsidiaries with differenced country-of-origin operating in one country (Roseneig, Nohora, 1994; Innes, Morris, 1995)

Nevertheless, the lack of typical Japanese HRM practices in researched subsidiaries emphasizes the importance of such factors as business strategy and reasons behind localizing the enterprise abroad.. The two of researched Japanese companies were focused primarily on cost-minimization and economic effect resulting from the transfer of production to another country. Moreover, they operated in Poland significantly shorter than the American companies and still were focused on development, activity connected with spending money. In consequence, in the case of the Japanese companies which were cost–oriented, the original solutions form the home country which required high implementation costs were not transferred to subsidiaries in Poland.

The transfer of employment practices deeply rooted in county-of-origin was not the same in the two research groups of companies. The findings are consistent with previous research on transferring of Japanese managerial practices. The results of research in Japanese companies in Mexico show a limited transfer of Japanese practices. In contrast to Japanese management. local workers had limited possibility of continuous improvement and training. Only more superficial aspects of the Japanese management practices, such as standardized uniforms and open space offices, are transferred to the subsidiaries. Dedoussis (1995) conducted research in nine Japanese subsidiaries of manufacturing companies located in Australia. The transfer of practices was restricted to those which did not cost much to establish. Those which required high outlays (such as extensive welfare benefits), were not adopted in subsidiaries. In turn, US companies usually introduce their management practices into another country (Sauers, Lin, Kennedy, Schrenkler, 2009; Yuen, Kee, 1993). According to Gyu-Chang at al. (2007), it could be explained by differences in "universalism-particularism" between the cultures, with North American being the most universalist, which corresponds to a tendency to apply rules and procedures universally, and Japanese particularist, which corresponds to greater flexibility in adapting to particular situations.

The findings are consistent with the results of previous research on transferring of HRM to subsidiaries. The study provides additional knowledge about the degree of implementation of the practices in Poland - relatively rarely studied country in cross-cultural research. This paper improves the understanding of the complex processes of implementing HRM practices in subsidiaries located in Poland and made a contribution to the HR literature from the Polish perspective. The survey method used in research allows not only to know the HRM practices declared by managers, but also the opinion of employees on extent of their introduction.

However, the limitations of this study, mostly quantitative, should be noted. Because of small research base, the use of techniques allowing control for other variables affecting the country-of-origin effect, such as company size was not possible (for more details see: Gyu-Chang, Woo-Sung, Yung-Ho, 2007).

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Abenomics and the Changing Nature of Work in Japan

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Abstract

The government of Japan has embarked on a three-pronged approach to stimulate economic growth after more than ten years of stagnation. While the plan was met with a great deal of hope and excitement after the first two "arrows" of monetary easing and fiscal stimulus were released, momentum has now tapered. Many observers have raised concerns over Japan's increasing national debt and whether to not it will be sustainable over the long term. Others have pointed out that the measures announced to date on the third arrow of Abenomics, deregulation and structural reform, are in the right direction but lack meaningful impact. Following the upper house elections in July the LDP has now gained more of a mandate to push for stronger reforms, but this may mean taking on powerful special interest groups who have been loyal party supporters in the past. More radical reforms could also potentially heighten economic divisions and social uncertainty in a country that has experienced very little of either in living memory.

What would a more emboldened form of Abenomics look like and what would it mean for Japan? This paper will examine the impact of the Industrial Competitiveness Council's proposed labor market reforms on the workplace. It will also look at the implications of these proposed reforms in the context of the broader changes that are affecting the workplace globally: increasingly flexible work arrangements, the breakdown of barriers, and the growing need for more self-reliance.

Keywords: Abenomics, macroeconomics, economic systems

Introduction

On December 26, 2012, Shinzo Abe returned to the position of Prime Minister of Japan, on the back of a landslide victory by the Liberal Democratic Party in the general election. Shortly thereafter he announced his program for reform to lift the country from nearly 20 years of economic stagnation and deflation.

Dubbed "Abenomics", the program consists of three components, or "arrows". The first arrow of monetary stimulus, initiated by the Bank of Japan, increased purchases of Japanese Government Bonds, and has been instrumental in weakening the yen and pushing inflation up to a five year high of 0.8 percent in August this year (McLannahan, B., 2013). The second arrow is approximately 10 trillion JPY of fiscal stimulus, with funds allocated to rebuilding the Tohoku region of Japan, as well as tranches for rebuilding industrial competitiveness and expenditures on healthcare and education (Cabinet Office, 2013).

The results so far have been impressive to many observers. Japan achieved 4% real growth in the first half of the year (BBC News, 2013). The Nikkei has seen a roughly 50% gain since the inauguration of the Abe cabinet. And as previously mentioned, the depreciation of the yen (by about 20% since Abe took office) has contributed to successfully re-inflating the Japanese economy.

However there is also a growing chorus that the benefits have only been felt by a small number of people, namely those who hold financial assets which have appreciated since the end of last year. According to BOJ survey data, nearly 26% of all households in Japan hold no financial assets at all, and the vast majority of those who do tend to concentrate their holdings in cash and insurance accounts (Bank of Japan, 2012, 2013). Also, a poll by Jiji News in October revealed that 76% of respondents reported feeling no effect of Abenomics, a slight increase from 69% of respondents reporting no impact back in April (Jiji, 2013). It remains to be seen if more people will feel a positive impact of the policy changes as they continue to take effect.

Other areas of Abenomics are aimed at addressing Japan's government debt. Current national debt outstanding amounts to 750 trillion, or 154% of GDP (Ministry of Finance, 2013). The consumption tax will be increased from 5% to 8% effective from April 2014, with an additional scheduled increase to 10% in October 2015. To address concerns about a possible economic slowdown due to reduced spending, the government has also proposed an additional stimulus package of 5 trillion yen, which will include cash handouts to low income families and tax breaks for companies making capital investments and wage increases (Davies, 2013). Still under discussion is lowering the corporate tax rate from 38% to 35%, which would encourage corporate spending and also give them an incentive to pay workers more (thereby offsetting any pain from a consumption tax increase).

However, there is still a lot of mystery around the nature and the extent of the third arrow of structural reform. Original proposals such as introducing more flexibility into the labor force by loosing restrictions on full-time workers have received strong opposition from labor unions and bureaucrats. However, negotiations continue on Japan joining the Trans-Pacific Partnership (TPP). Also, the Abe government is proposing a number of measures to deregulate farmland ownership and increase competition in the electricity industry, among others.

While many experts argue that many of these measures will help to improve Japan's economic situation in the short to mid-term, it is still difficult to gauge how these steps will impact Japan over the long run and demonstrate to what extent, in the words of the Prime Minster, "Japan is back" (Abe, 2013). Other forces, such as Japan's rapidly aging population, increasing pension burden and health care costs, low birthrate, lack of innovation, and low participation rate of women in the workforce must also be considered if we are to truly understand how effective these measures will be in turning around the country's trajectory.

This paper will attempt to answer that question by using an economic model that takes into consideration these relationships, how they interact with proposed economic policies, influence government spending, GDP and other variables. From this, we can project what the economic state of Japan will be in the future. Using this understanding, we can make some inferences on the nature of the work environment at various points in time, and get a better understanding of whether or not Japanese people will truly benefit from Abenomics.

Description of Economic Model

The model we use to understand the impact of Abenomics is based on the classic macroeconomic approach of viewing all the transactions between individuals, companies and government as a circular flow (Rukstad, 1992). If our case, we focus on the following sectors:

- The first sector is the population of Japan, with a sub-sector of working individuals. General population projections are based on the UN's World Population Prospects (medium fertility case) (United Nations, 2013). Working population estimates are based on figures provided by the Japanese government (Statistics Bureau, 2011). Both data sets provide figures by gender and by age cohort. For the base case, we have assumed that workforce participation for each gender and cohort remain constant over time, and for varying scenarios we adjust to account for greater participation by women in the workforce.
- The second sector is companies, based on company data provided by the National Tax Agency (National Tax Agency, 2011). Individuals receive income from companies and consume goods and services. Companies also invest in plant and equipment. Additionally, we make assumptions about the

number of startups that can be created based on government policies and available workforce population over time.

- The third sector is government. The national government is responsible for social welfare, which consists of national health insurance and pension plans, along with other social welfare programs (unemployment insurance, family assistance, etc.). It also allocates funds to local and regional governments, spends on public works, and supports the other functions of central government (defense, education, etc.). Government spending is funded by a combination of tax revenue and debt issuance.
- The final sector is the financial markets. As mentioned above, government must fund itself with a combination of tax revenue and debt.

Putting these sectors together results in the flow diagram below.

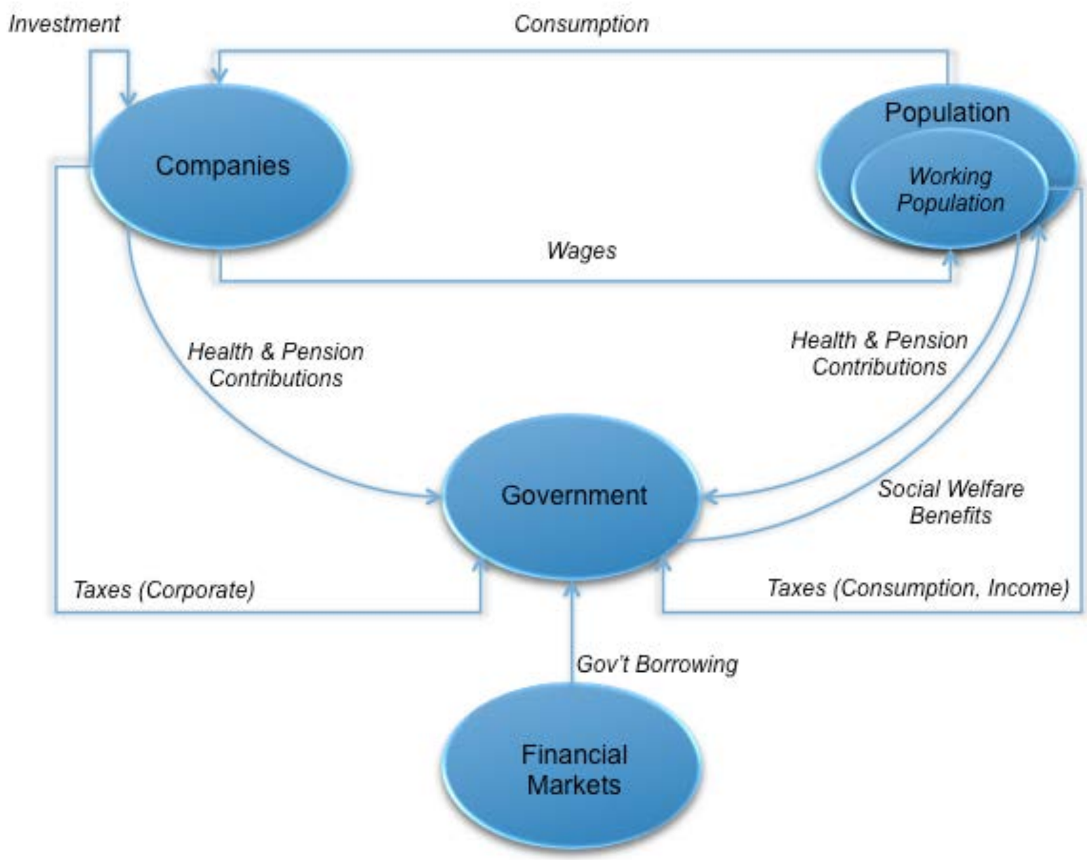

Figure 1: Flow diagram of Japan economy

With this model of Japan's economy, we can apply some of the key proposals of Abenomics, along with the demographic assumptions, and examine what the impact will be to Japan over time.

What will the Third Arrow Look Like? Three Possible Scenarios

While many aspects of the Abe government's third arrow are still under discussion at this time, there are some indications that the proposals will not be as aggressive at previously thought. There may be some opening of the agricultural market as a result of Japan's participation in the TPP, for example, but most likely calls liberalize the labor market (including in designated special economic zones) will not go through due to strong opposition (Nikkei, 2013).

For purposes of forecasting the impact of any proposed structural reforms, we have come up with a list of likely variables and created three scenarios. Inputting these changes into our model can give us some idea of what impact each of the changes has on the economy over time.

The first scenario we examined was the "weak third arrow" case. In this case, there are little major proposed reforms, other than the already agreed upon increase in consumption tax and the additional 5 trillion yen stimulus to offset worries about a slowdown in 2014. For this scenario we kept the corporate rate where it currently is (38%), but since 4 trillion yen of the stimulus is a tax incentive, tax revenue will go down in 2014 while wages increase slightly and companies invest more on plant and equipment. We also assume in this scenario that there is little to no change in the participation of women in the workforce, that the differential between women and men wages remains the same, and that there is no major change in the retirement age. And finally, for this scenario we assume that while there may be some relaxation in regulations to start new businesses, there will be some constraint on the extent to which the economy is capable of creating new businesses due to the overall size of the labor force. Therefore, after some point in time additional new business creation will peak and workers will simply shift between firms.

In the second scenario, we expand the degree of structural change. The consumption tax increase goes through as planned, along with an accompanying stimulus. In this case however, we only introduce part of the proposed corporate tax reduction (36.5%, not the full 35%). As a result, we assume that companies will spend the tax savings on both additional investment in plant and equipment as well as increases in wages. We also factor in the impact of greater inclusion of women in the workforce by raising the participation rate, and also introduce the effects of some efforts to reduce the wage gap. We also raise the retirement age to 65, which will further increase available labor. Due to this overall expansion of the labor force, any efforts to reduce regulation to foster new business startup will now have the added benefit of increasing the overall number of companies, which will result in greater tax revenue and higher investment. This larger workforce will also spur higher consumer spending, although this will be somewhat mitigated by the increase in the consumption tax.

And finally, our third scenario assumes the most aggressive changes of all. In this case, we will assume some flexibility in the labor market, which will result in higher unemployment. However, we will also introduce the highest degree of women participation in the workforce, and put Japan on a par with the female participation rates found in countries such as Norway and Sweden. The gender gap for wages will also be adjusted, this time assuming full wage equality between women and men. We also increase the retirement age further, and thereby widen the available labor force to the highest level. As in the previous scenario, we will reduce the corporate tax rate, but this time down to the proposed 35%. Once again we will assume that companies will pass on these tax savings in the form of additional investment and higher wages.

The table below summarizes the assumptions we will be using in each of our three scenarios for the Abe government's third arrow. The next section will review the results of each case.

	Scenario 1 – "Weak Third Arrow"	**Scenario 2 – "Medium Third Arrow"**	**Scenario 3 – "Strong Third Arrow"**
Consumption Tax Increase	As planned in 2014 and 2015	As planned in 2014 and 2015	As planned in 2014 and 2015
Corporate Tax Reduction	None; stays at 38%	Reduce to 36.5%	Reduce to 35%
Increased Corporate Spending	Stimulus in FY14	Stimulus in FY14; tax reduction thereafter	Stimulus in FY14; tax reduction thereafter
Higher Wages	Yes	Yes, plus some wage equality	Yes, plus full wage equality
Women Participation in Workforce	Same as current	Some additional	Similar to Scandinavia
Extend Retirement Age	No	Yes; to 65	Yes; to 70
Greater Innovation, More Startups	Shift workforce from non-performing to performing sectors	Increased workforce results in net increase in total number of companies	Increased workforce results in net increase in total number of companies

Table 1: Summary of assumptions used in each Third Arrow scenario

Model Results

Scenario 1: "Weak Third Arrow"

In Scenario 1, we assumed that the consumption tax increase from 5% to 8% would go into effect from next year, with an additional increase in 2015 from 8% to 10%. The corporate tax rate in this scenario will stay at the current 38%. We made no adjustments to workforce participation, assuming that women and seniors will be in the workforce at current levels.

The biggest difference we included into this model was an assumption that the government would introduce reforms as part of the third arrow to encourage new business startups. One proposal calls for doubling the number of newly formed businesses by 2020, which would mean increasing the number of startups annually from 100,000 to 200,000 (Nikkei, 2013).

What we found in this scenario what that when we try to introduce this increased rate of new startups into the model, new startup growth is ultimately limited by the number of people in the workforce. The current workforce is around 62 million, with an average of about 24 employees per company. If we allow for the average number of employees per company to shrink slightly as a result of productivity gains, and consider that that the labor force will shrink to around 58 million over the next 7 years, then even if we assume that relaxed regulations make it easier to form new companies we can only achieve a level of new business formation of around 145,000 annually by 2020. This is less than the target, but given the size of the workforce and our constraints on increased female and elderly participation, this is as much as we can realistically achieve.

Turning to other metrics, we can see that overall GDP declines from the current level of around 514 trillion yen in 2010 to 506 trillion yen in 2015, even with increased startup formation. The economy continues to contract throughout the timeframe, due to the fact that the limits on available labor and population decline more than offset any increased economic activity. We have not factored in any additional government stimulus beyond 2014, given that the focus in the future will increasingly be more on how to deal with Japan's aging population in the face in increasing levels of debt. Assuming no additional economic stimulus in future years, we see national government debt to GDP rising from the current 131% to nearly 230% by 2040. When local government debt is considered as well, this level of debt is clearly unsustainable.

Well-being measured in terms of income per person and GDP per person both rise at first, and then fall off as GDP shrinks and corporate activity declines. Incomes remain at around current levels at first (around 5 million yen per worker), but then increase to as high at 5.13 million yen in around 2020 (around the time of the next Tokyo Olympics) before starting to move downward. This would seem to indicate a final period of relative economic prosperity before Japan begins to turn downward to becoming an older, smaller, and ultimately less wealthy society.

	Total Population	Size of Workforce	Number of Companies	GDP	National Debt to GDP	Income per Worker	GDP per Person
2010	127,353	62,077	2,586,882	514,689,475	131%	5,068	4,041
2015	126,818	60,100	2,565,380	506,332,943	152%	5,097	3,993
2020	125,382	58,448	2,630,124	503,488,051	167%	5,131	4,016
2025	123,256	56,826	2,655,420	494,736,575	182%	5,138	4,034
2030	120,625	54,716	2,680,960	481,035,297	197%	5,116	4,029
2035	117,663	52,118	2,577,149	459,548,391	212%	5,074	3,966
2040	114,517	49,278	2,477,359	438,302,276	228%	5,053	3,907

Scenario 2: "Medium Third Arrow"

In the second scenario, we kept the consumption tax increase from Scenario 1, and introduced the corporate tax reduction. Instead of reducing this tax by the full amount however, we reduced the corporate tax from the current level of 38% to 36.5% (one half of the proposed difference). This reduction in tax, we assumed, would be used by businesses for additional investments in plant and equipment. We also kept the plan to double new business growth by 2020.

In this scenario we began to examine the impact of expanding the labor pool by increasing participation in the workforce by women and the elderly. Using statistics from the Ministry of Health, Labor and Welfare, we calculated the midpoint between participation rates for each age and gender cohort, and used these new rates to calculate number of women in the workforce. We also made similar adjustments to increase the retirement age from 60 to 65 to see how many additional elderly would be available to continue working.

One issue not being currently discussed in the debate over Abenomics today is the issue of wage equality. Figures provided by the Japanese government clearly show differences in average pay between women and men, and Japan consistently ranks among the lowest countries in terms of gender equality (Ministry of Health, Labor and Welfare, 2012). One of the reasons for the large wage discrepancies between women and men is that work content has traditionally been segmented by gender in Japan, with "general" work assigned more to women and "specialty", higher value-added work being assigned to men. Re-thinking of work content will probably need to be considered to achieve a more balanced allocation of general and specialty tasks to women and men and along with this, rethinking of how workers are paid. Unfortunately this is something beyond the scope of Abenomics as it is being discussed today. For illustrative purposes however, we decided to simulate the impact of this by introducing a wage equality factor, and scaling the wage of women across age cohorts in such a way as to reduce the gap between their income and men.

By expanding the available workforce in these ways, this scenario grows the labor pool by approximately 5.3 million women and 1.5 million elderly. The additional workers also enable us to grow the number of new business startups and meet the annual target for new businesses, with nearly 200,000 new businesses created by 2020. This additional economic activity contributes to a higher GDP in 2015 and beyond (562 trillion yen, compared to 506 trillion yen in Scenario 1). While the first scenario calls for a slight downturn between 2015 and 2020, we achieve slightly less than 2% GDP growth annually between 2010 and 2015 in this case. The reduction in corporate tax also contributes about 300 billion yen in additional investment in plant equipment.

Additionally on the fiscal side, the increase in consumption tax results in an additional 9 trillion in revenues. This assumes that the stimulus proposed in FY 2014 to offset any negative impact of the tax increase is successful and spending does not fall off once this is removed in subsequent years. Looking out to the future, we see that subsequent pressures on the population as it gets smaller and ages mean however, that government outlays will continue to increase and government debt as a percent of GDP will also go up as we saw in the previous scenario. The good news is that the increased economic activity will mean less need for borrowing at the government level to fulfill its obligations due to increased tax revenues. National government debt as a percentage of GDP is 191% by 2040, compared to 228% in the previous scenario. While this level of debt is still high, it is an improvement over the current path.

	Total Population	Size of Workforce	Number of Companies	GDP	Compounded Annual GDP Growth	National Debt to GDP	Income per Worker	GDP per Person
2010	127,353	62,077	2,586,882	514,689,475	-	131%	5,068	4,041
2015	126,818	65,485	2,586,065	555,458,802	1.9%	148%	5,396	4,380
2020	125,382	63,713	2,780,418	556,292,528	0.0%	157%	5,436	4,437
2025	123,256	62,007	2,852,199	550,620,564	-0.3%	165%	5,445	4,467
2030	120,625	59,797	2,925,834	539,330,678	-0.5%	173%	5,417	4,471
2035	117,663	57,030	2,829,416	517,885,613	-1.0%	182%	5,364	4,401
2040	114,517	53,965	2,736,176	496,484,943	-1.0%	191%	5,336	4,335

Scenario 3: "Strong Third Arrow"

Our final scenario is similar to the previous one, except that we have increased the impacts of several of our conditions. The consumption tax increase remains, and we have added the full effect of a corporate tax reduction (from the current 38% to 35%). We have also increased women participation in the workforce even further, to simulate conditions found in the Scandinavian countries, where the workforce participation by women between 15 and 64 is approximately 76% (compared to 63% for Japan). We have also introduced full wage equality, assuming the necessary restructuring of job content to make this possible. We also introduce greater labor contract flexibility by increasing unemployment across all age cohorts by one percent, which means higher turnover as people leave their existing jobs and move to new ones. Much of this comes from relaxed restrictions on hiring and firing full-time staff, as well as easier conditions on part-time and contract work. And finally we keep the goal of increasing new business startups in an effort to boost economic growth.

As imagined, these conditions give us the best outcome. In spite of increased unemployment, we are able to hire an additional half million women, and this expanded labor pool allows us to grow the number of startups higher than in the previous case by several thousand. Consumer spending is higher, and the corporate tax reduction allows companies to invest an additional 1 trillion yen annually. The increased economic activity from consumers and companies contributes an additional 5% to GDP over the second scenario. Greater tax revenues mean that the government has to borrow less (although some of this savings would be reduced by increased unemployment payments, and other stimulus such as training programs, etc.), resulting in a debt to GDP ratio of 176% by 2040.

Even in this case, however, the impact of the demographic changes that are being felt in Japan today cannot be completely eliminated. GDP peaks in 2020 at around 584 trillion yen before it gradually declines to 519 trillion by 2040. Current GDP is around this level, meaning that in best case, Japan's economy will be back where it currently is in about 25 years. This final scenario, however, implies that through greater workforce participation, flexibility, and innovation, it may be possible to mitigate some of these effects in such a way that, although Japan is smaller economically, it is still able to maintain a fairly high standard of living. This will require its citizens to think very differently about what it means to live in their country. Social roles and work roles will need to be re-examined. And most importantly, the concept of work will need to change from an individual belonging to an organization to having a set of talent and skills that may change over time so that the individual is better equipped to deal with economic uncertainties.

	Total Population	Size of Workforce	Number of Companies	GDP	Compounded Annual GDP Growth	National Debt to GDP	Income per Worker	GDP per Person
2010	127,353	62,077	2,586,882	514,689,475	-	131%	5,068	4,041
2015	126,818	65,635	2,586,065	582,807,365	3.2%	145%	5,779	4,596
2020	125,382	63,847	2,780,418	583,754,003	0.0%	151%	5,830	4,656
2025	123,256	62,121	2,852,199	577,559,980	-0.3%	157%	5,842	4,686
2030	120,625	59,899	2,925,834	565,080,822	-0.5%	163%	5,809	4,685
2035	117,663	57,130	2,836,047	542,056,270	-1.0%	169%	5,745	4,607
2040	114,517	54,061	2,749,015	519,233,574	-1.1%	176%	5,710	4,534

Model Limitations

There are a number of considerations we need to look at in future studies. One of our biggest observations was that while monetary and fiscal moves and changes at the government level can make some inroads, much of the potential to turn around Japan's economy depends on its ability to make changes to many of the deep-rooted social conventions that have been key to its success.

Having said this, more needs to be done to better understand the various factors that prevent women in Japan from participating more fully in the workplace. While there is discussion at the national level about providing more opportunities for childcare, and this is important. At the same time, however, greater participation of women in the workforce has implications to society as a whole, and if true labor quality is to be achieved (including equal pay for equal work), then roles in the workplace, as well as in the home, must also be reexamined.

Also, while we have looked at the impact of the policies of Abenomics on income levels by gender and age cohort, we also need to consider income by employment status (part-time versus full-time). Changes in labor policy will have very different implications on full-timers than part-timers depending on what is under discussion. Given the large discrepancies in income level, and the fact that a higher percentage of women are employed part-time compared to men, this would impact our study and needs to be considered.
In other areas, we have also not examined the impact any of the policies proposed by the Abe government have on economic inequality. While not under a lot of focus, according to the OECD, one in six Japanese live with less than half the median income (OECD, 2008). None of the proposals on the table currently address this and while we have made some assumptions about wage equality in our calculations, these are at the aggregate level and still don't help us understand how the most vulnerable would be impacted by these proposals.

Currently, more than a third of Japan's budget is spent on social welfare, and under current conditions, this will likely increase. Moreover, questions over the adequacy of health care and pension contributions mean that additional funds will be required. We have not included this in our calculations due to the fact that various aspects of health care and pension costs are currently under review and there is increasing discussion over how much of this burden can and should be shifted from the national and local governments to individuals. Finally, the impact of moving from accumulation-based pensions (still common in Japan) to investment-based accounts (such as 401K accounts in the US, which are now being introduced in Japan) must also be considered as part of this question.

Finally, we have considered only the national government in performing this analysis. Although we looked at how the national government redeems its outstanding debt as a function of how outstanding national debt varies from year to year, we probably need to take a more careful look at how this varies by maturity, duration, and the overall condition of the market for government debt. Also, a more thorough look would include the role of the local government as well. While the national allocation covers part of their budget, they also collect tax revenues, and are responsible for social spending, public works, etc. In order to examine the entire system of economic flows, their role must also be included.

Conclusions

By implementing various versions of Abenomics, we have shown how a larger, more empowered workforce, greater hiring flexibility, and more entrepreneurial-friendly policies can help to give Japan's economy a short-term spurt. However demographic trends mean that over time the population will still age, people will retire, and the overall number of people available to drive the economy will decrease. The only differences in the three scenarios we have constructed is to what extent it will be possible to kick start growth in the short term and how this will reduce the need to take on additional debt to fund social welfare obligations in future years. In the best cases it may be possible to create a "soft landing", where the economy is much smaller than in the past, but productivity is high, which will result in increasing average prosperity (measured in terms of GDP per person and average wages). However achieving this is not guaranteed, as it involves resolving a host of social changes, re-examining traditional gender roles, and re-thinking what it means to work.

Regardless of how much these issues are grappled with in future years, an emboldened version of Abemonics, including many policy changes currently not under discussion, would only put off the inevitable: an older, smaller Japan with a reduced economic footprint.

Results of Three Scenarios

Total Population (thousands)

	Scenario 1	Scenario 2	Scenario 3
2010	127,353	127,353	127,353
2015	126,818	126,818	126,818
2020	125,382	125,382	125,382
2025	123,256	123,256	123,256
2030	120,625	120,625	120,625
2035	117,663	117,663	117,663
2040	114,517	114,517	114,517

Total Workforce (Thousands)

	Scenario 1	Scenario 2	Scenario 3
2010	62,077	62,077	62,077
2015	60,100	65,485	65,635
2020	58,448	63,713	63,847
2025	56,826	62,007	62,121
2030	54,716	59,797	59,899
2035	52,118	57,030	57,130
2040	49,278	53,965	54,061

GDP (Yen millions)

	Scenario 1	Scenario 2	Scenario 3
2010	514,689,475	514,689,475	514,689,475
2015	506,332,943	562,993,752	594,501,978
2020	503,488,051	563,744,708	595,352,825
2025	494,736,575	557,938,292	588,931,085
2030	481,035,297	546,382,687	575,988,835
2035	459,548,391	524,536,046	552,290,018
2040	438,302,276	502,732,861	528,816,673

New Startups

	Scenario 1	Scenario 2	Scenario 3
2010	108,927	108,927	108,927
2015	121,579	137,475	138,032
2020	144,501	197,798	199,879
2025	145,891	202,905	205,160
2030	127,057	155,537	156,618
2035	122,137	150,411	151,844
2040	117,408	145,454	147,214

National Debt as pct. of GDP

	Scenario 1	Scenario 2	Scenario 3
2010	131%	131%	131%
2015	152%	152%	151%
2020	167%	165%	164%
2025	182%	177%	175%
2030	197%	189%	187%
2035	212%	201%	198%
2040	228%	214%	211%

Income per Person (Yen thousands)

	Scenario 1	Scenario 2	Scenario 3
2010	5,068	5,068	5,068
2015	5,097	5,396	5,779
2020	5,131	5,436	5,830
2025	5,138	5,445	5,842
2030	5,116	5,417	5,809
2035	5,074	5,364	5,745
2040	5,053	5,336	5,710

Health Care Surplus/Shortfall (Yen million)

	Scenario 1	Scenario 2	Scenario 3
2010	4,150,316	4,150,316	4,150,316
2015	669,422	6,914,034	10,361,367
2020	(1,711,319)	4,464,697	7,899,829
2025	(3,137,311)	2,927,278	6,284,584
2030	(4,789,158)	1,055,215	4,248,360
2035	(6,965,079)	(1,453,513)	1,509,740
2040	(9,248,683)	(4,070,703)	(1,316,962)

Pension Surplus/Shortfall (Yen million)

	Scenario 1	Scenario 2	Scenario 3
2010	3,307,013	3,307,013	3,307,013
2015	(18,270,869)	(10,076,330)	(5,552,541)
2020	(22,721,910)	(14,617,388)	(10,109,610)
2025	(25,532,265)	(17,573,963)	(13,168,313)
2030	(29,152,537)	(21,483,215)	(17,292,986)
2035	(34,414,522)	(27,181,928)	(23,293,377)
2040	(39,044,423)	(32,249,580)	(28,635,963)

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Enhancing The Adaptation Process of Toyota Way Through Alternative Motivation Approach and Influence to Quality Achievement

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Abstract

The Malaysia automotive industry's growth increased positively and became more competitive through the collaboration with top global players. Toyota products achieved 48% of market share in passenger car segment indicates that their products were widely accepted by the Malaysian. However, there is a concern in thinking style recognized as the "captive mind" syndrome which could risk the quality achievement and affecting Malaysia competitive advantage in this industry. Previous study recognized that local employees had lukewarm attitude and reset mind setting which required appropriate motivation approach which may assist them to adapt to new working culture effectively. In this paper, an alternative module utilised as the countermeasure in the motivation approach as problem solution tool. The objective of this study is to evaluate the effectiveness of Toyota Way on local employees through the application of an alternative motivation approach and to see the effects on quality achievement. The respondents were selected from snowball sampling method. Qualitative analysis of observation studies, semi-structured interviews and open questionnaires were used in this study. High clarification of similarities in principles and practices between Toyota Way and Islam from the approach contributed significant achievements on quality of product and employees respectively. The lack of understanding the similarities in concepts and employees attitude were understand as barriers in this study.

Keywords: Toyota Way, Motivation, Quality

INTRODUCTION

Malaysia Automotive Industry in Brief

Automotive industry in Malaysia has become more competitive through collaborations with top global players such as Mitsubishi Motors, Daihatsu Motors, and Toyota Motors Corporation. Through National Automotive Policy (2005, 2009), the government has outlined the objective to turn Malaysia as the ASEAN hub for passenger car producer by the year 2010, and it has been successfully achieved. However, in 2011, the national total production volume faced a slow pace movement despite the assistance from the government policies related to the automotive industries. As shown in Table 1, OICA (2011) reported that the overall strong performance of the Thai automobile sector and a recent diversification into passenger vehicles has resulted that Thailand has overtaken Malaysia as the Southeast Asia's premier location for passenger car manufacturing.

Table 1: Production Volume of Passenger Car (PC)/Commercial Vehicle (CV)

	2006			2010		
	PC	CV	PC%	PC	CV	PC%
Malaysia	377952	125021	75	522568	45147	92
Thailand	298819	895607	25	554387	1090126	33
Indonesia	256285	40777	86	496524	205984	70

Source: OICA

In previous studies (Fujita, 1997, Wad and Govindaraju, 2011) stated that Malaysian vehicle sales and production has increased markedly. Yearly vehicle sales rose from below 54,000 in 1987 to 605,156 vehicles in 2010, while production rose from 104,000 to 567,715 vehicles. The issue raised was what has brought Malaysian automotive industry weakens in terms of the industry competitiveness compared to other producers such as Thailand? This situation has put Malaysia automotive industry in a non-competitive condition and this paper attempts to discover the reason for the Malaysian made automobile unable to capture the attention in the international market.

The Position of Japanese Automakers in Malaysia

The Malaysia automotive market is dominated by the Japanese automakers (Henriksson, 2012) result from the 'Look East Policy'[1] established in 1981. The first

[1] The Look East Policy was launched in late 1981, at the beginning of Mahathir's career as Prime Minister. The policy did not just focus on Japan, but South Korea and Taiwan as well. *Looking East* also did not mean following all Eastern habits blindly or trading solely with these countries, it was learning the good values of the East, particularly their work ethics and their technological skills.

objective of this policy was to encourage learning from Japan's work ethics. Another significant one was raising the position of *bumiputera*[2], and encourages them to participate in heavy industries regarding capital, employment and management (Fujita, 1997). Table 2 indicates the market position of the top ten passenger vehicle makers, where five are Japanese or controlled by Japanese firms. Malaysia Automotive Association (2011) reported that Toyota group products dominated nearly half of the market share in passenger car segment which reached 47.8 % and also controls Perodua (through Daihatsu) which has overtaken Proton's position as Malaysia's incumbent automaker that indicates Japanese automakers had strong position in local passenger car market.

Table 2: Market Position by market share/units sold

Rank	Brand/Maker	Total units sold	Total market share (%)	Passenger Car	Market share (%)	Com. Vehicle	Market share (%)
1	Perodua	188641	31.2	188641	34.7	0	0
2	Proton	157274	26	156960	26.9	314	0.5
3	Toyota	91559	15.1	71065	13.1	20494	33.3
4	Honda	44483	7.4	44483	8.2	0	0
5	Nissan	34701	5.7	26322	4.8	8379	13.6
6	Mitsubishi	11899	2	4049	0.7	7850	12.8

Source: MAA, 2011

Two main factors constrict the technological upgrading in the Malaysian automotive industry: 1) poor human capital, 2) lack of linkages between meso-level organisations and the domestic vehicle makers. Rasiah (2011) added that the condition is worsen due to poor innovative capability among graduates from polytechnics and vocational schools who dominant the lower level of employment hierarchy contributing to lack of competitive measure with foreign firms. Henriksson (2012) argued that local suppliers have failed to meet the necessary technological sophistication to become OEM suppliers, and they could only supply low tech products. Thus, local manufacturers depend on foreign imports for high tech components and supplies.

Malaysian Automotive Association (2011) reported that the Japanese automakers particularly Toyota had strong position and influence towards shaping Malaysia automotive landscape. However, there were lack of studies from human potential development perspective based on the Toyota management system principles and relates to the appropriate approach on providing countermeasure to upgrading the poor human capital factors and relates it to quality achievement.

[2] *Bumiputera* is a Malaysian term to describe the Malay race and other indigenous peoples of Southeast Asia, and used particularly in Malaysia. The term comes from the Sanskrit word *bhumiputra*, which can be translated literally as "son of the land" or "son of the soil".

Since this subject is still an understudied phenomenon, together with lacking of empirical evidence, a case study approach based on in-depth interviews with 32 participants from seven Toyota group of companies and observation studies was utilised (Yin, 2003). The purpose of this article is to understand the effectiveness of Toyota Way on local employees through an alternative motivation approach and investigates the effects on quality achievement. The objectives are threefold: 1) to evaluate the understanding level of Toyota Way among Toyota workers, 2) to use an alternative motivation module in the training session through motivation approach, and 3) to see the effect of motivation on the quality achievement.

LITERATURE REVIEW

The presence of Toyota Motor Corporation has influenced the Malaysia automotive industry for two reasons: 1) high acceptance level of Toyota products in local passenger car market segment that reached nearly half of the market share (MAA, 2012); 2) the high numbers of vendors practicing Toyota Way as there were approximately 138 vendors registered as active vendors through Perodua Vendor Association in Malaysia (Jabir, 2009). Understanding that the Japanese automakers have been playing an important role in the process of formation and development of Malaysia automotive industry, several research (Sadoi, 1998, Wad & Govindaraju, 2011, Henriksson, 2012) in regard to the Malaysian automotive industry have been conducted. The main finding of those studies revealed that Malaysian automotive industry is lacking of high-skilled workers resulting in losing position as the hub for passenger car producer and centred as the training hub in Asean (OICA, 2011, Sadoi, 2012).

Sadoi (1998) earlier found that the automotive industry in Malaysia is facing difficulties in achieving the requirement of skilled workers, affecting the development of this industry. One of the main issues contributed the above phenomenon was related to the workers behaviour in the industry regarded as '*lukewarm attitude*'[3] (Sadoi, 1998; 2003). This finding was supported by another study by Jabir (2010) stated that the workers also had '*reset mind setting*', defined as a situation whereby worker will interchangeably[4] his/her perception on understanding and thinking each time when working situation and their personal life environment exchange. The '*lukewarm attitude*' and '*reset mind setting*' are related to the thinking style and this problem referred as '*captive mind*' syndrome, referring to a situation where an

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[3] *Lukewarm attitude* defined as the situation whereby workers do not have a thoughtful manner in the desire of learning towards various skills which required being a high skilled worker.

[4] The interchangeable thought recognized as the main factor lead to the repetition of similar mistake during the working process and cases were reported mainly from the floor management staff and frequent supervisions from higher rank in job position is necessary as the countermeasure and this hinder faster learning process.

uncritical and imitative mind dominated by an external source[5] whose thinking is deflected from an independent perspective (Al-Attas, 1974). The captive mind characteristics include the inability to be creative and raise original problems, the inability to devise original analytical methods, and alienation from the main issues of indigenous society (Al-Attas, 1972).

Companies practicing Toyota Way in their management system has high potential to influence the formation of high skill requirements based on their principles and concepts which accelerate thinking process within their value chain (Ohno, 1988 and Liker, 2004). Thinking revolution[6] indeed requires knowledge and firm understanding of it course to educate and nurture worker into skilled as well the creativity in product manufacturing. Therefore, it is crucial to review the industry from the human capital perspective and analyse their perception towards this industry that dominated by Japanese automakers which particular attention to Toyota.

Jabir (2009, 2010, 2011) observed the initial method in introducing the Toyota Way concept to the local workers who viewed it as unfamiliar foreign concept which they have to learn, implement, and adapt in their work. The issue was that any particular management concept or system must have an appropriate introduction phase as many researchers believed that the main problem lies on the misunderstanding of the real concept and purpose of Toyota Way (Balle, 2005 and Schonberger, 2007). This type of misunderstanding could lead to major issues such as piecemeal adoption of Toyota Way tools and techniques (James, 2006), misapplication of Toyota Way tools (Pavnaskar et al., 2003, Herron and Braiden, 2007), and lack of development of Toyota Way culture that support the Toyota Way development (Jorgensen et al., 2007, Liker and Hoseus, 2008).

Previous studies suggested that if a company ignored the Toyota Way strategy, it may not be able to face current global competition for higher quality, faster delivery and lower costs (Womack et al., 1990, Flott, 2002, Srinivasaraghavan and Allada, 2006). Adopting Toyota Way principles could produce high firm performance (Oliver et al., 1996), and may form successful roadmap to world class manufacturing (Papadopoulou and Ozbayrak, 2005). Nevertheless, the system can be risky and stressful if management and workforces are not highly capable and lack of trust in the

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[5] The external source is western social science and humanities and the uncritical imitation that influences all the constituents of scientific activity such as problem selection, conceptualization, analysis, generalization, description, explanation, and interpretation.

[6] Thinking revolution defined as the situation to identify the problem which surface through careful observation and participation in the working area which required immediate countermeasure to avoid repetition of mistake.

system (Williams, 2007). This suggests without highly capable and motivated people rigorously solving problems, the lean system will fail.

Anand and Kodali (2009) claimed that many lean manufacturing initiatives have failed due to the lack of managers and employees' understanding of management concepts. Therefore, Yu and Kuan (2009) emphasized that a comprehend framework for lean manufacturing that integrates the practices in different areas are required for practitioners to have clear understanding of the requirements in implementing the lean manufacturing. Operational performance can be enhanced when the employees comprehend the innovative manufacturing systems and technologies, which in turn stimulate staff motivation and develop organizational expertise (Chen and Huang, 2009). Investing in human capitals was one of the key success factors to growing business opportunities in Toyota (Liker and Hoseus, 2008). According to Williams (2007), since the establishment of Toyota, two pillars that remain until today are respect to human capital and continuous improvement, characterizing the Toyota Way, thus becoming distinctive competencies for the company.

Thus, this study takes the initiative to examine similarity of Toyota Way principles with principles based on religious belief embedded in the local employees. The comparison with Islamic principles was taken based on the fact that approximately 95% of Toyota workers were Malay Muslim and the managers in charge of Human Potential Department were very supportive in sharing the ideas for this research (Jabir, 2009, 2010, 2011). High participation of Malay Muslims, known as *bumiputera* in Malaysia is based on the national agenda through National Economic Policy[7] which provide the opportunity to the *bumiputera* to participate in heavy industrial sector with the objective to improve the standard of living. *Bumiputera* was targeted to achieve at least 30 %s of economic entity in Malaysia (NEP, 1970).

Understanding that cultural life style will affect the understanding towards foreign system, this study intends to identify and understand the similarities between the foreign management system and the personal system built based on the religious belief. The Qur'an (88: 17-20)[8] verified that the Islamic teaching stimulates and urges the Muslims to investigate, think, analyse, evaluate, as well as to avoid superstition which related to thinking whereby this advice is indeed also the fundamental in Toyota Way.

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[7] The Malaysian New Economic Policy (NEP or *DEB* for Dasar Ekonomi Baru in Malay) was an ambitious socio-economic restructuring affirmative action program launched by the Malaysian government in 1971 under the then Prime Minister Tun Abdul Razak. The NEP ended in 1990.

[8] Qur'an (88: 17-20), "*Do they not look at the Camels, how they are made?, And at the Sky, how it is raised high?, And at the Mountains, how they are fixed firm?, And at the Earth, how it is spread out?*"

RESEARCH METHODOLOGY

The qualitative research tools and analysis method such as in-depth interviews, observations studies and documents exploratory were applied to examine the research question and to achieve research objectives. Since this subject is still an understudied phenomenon, couple with lacking of empirical evidence and complexity of the issue, this research uses multiple-case study methodology (Yin, 2003) based on in-depth interviews and observation. Thirty two interviewees from seven companies that practicing Toyota Way in the organization participated in this study (Jabir, 2009, 2010, 2011).

All the interviews were recorded and transcribed prior to the case analysis. After the analysis, case summaries were sent to the respective respondents for confirmation. These procedures are strongly recommended in the qualitative research to warrant for research validity and reliability (Miles & Huberman, 1994, Merriam, 2002). The analysis was conducted specifically to evaluate the understanding level of Toyota Way among Toyota workers, to apply an alternative motivation module in trainings and briefing sessions to all Toyota workers, and to evaluate the effect of motivation on the quality achievement.

The snowball sampling method was applied and the samples were selected based on the company that established and practices Toyota Way in the production and administration processes which located in Klang Valley. Perusahaan Otomobil Kedua Sdn Bhd (PERODUA) is the main research sample and Perodua will introduce to the third party logistic company and vendors that registered in Perodua Vendor Association. However, the company names for vendors and third party logistic company remained confidential in this study.

The limitation of this sampling method was the main sample only recommended to vendor which practicing Toyota Way comprehensively as the production system and upon approval from main sample only, researcher could access to other vendors. The development of this system were measured respectively by each company and also assistance from main sample for the reason that this system is dynamic and continuously develop to suit the current business context. Thus, up to a certain extent the main sample could identified which vendors inculcate Toyota Way comprehensively or vice versa to recommended as the sample in this study. Below tables are the module summaries applied in the alternative motivation approach which developed from the comparison study between Toyota Way and Islamic teachings principles (Jabir, 2010, 2011):

Table 3: Toyota 4P

TOYOTA WAY		ISLAMIC VALUES	
Philosophy	Long-term orientation	The act of perseverance	Quran; Chapter 3 (Ali Imran):200
Process	Just In Time	Excess is the act of Satan	Quran; Chapter 17 (Al-Isra): 26-27
People and Partners	Respect and Educate	Accept the difference and appreciate those values	Quran; Chapter 49 (Al-Hujurat): 13
Problem Solving	Continuous improvement	The concept of Istiqomah and Jihad	Quran; Chapter 13 (Al-Ra'dj): 11

Source: Liker, JK & Hoseus, M 2008, 'Toyota Culture: the heart and soul of the Toyota Way', New York: McGraw-Hill & Ali, AY 2009, 'The Meaning of The Holy Quran: Text, Translation and Commentary', Islamic Book Trust, Petaling Jaya.

Table 4: Toyota Way 14 Principles

TOYOTA WAY		ISLAMIC VALUES	
Philosophy			
Long-term orientation	Customer Satisfaction	The act of honesty in business transaction and quality orientation	Quran; Chapter 6 (Al-An'am): 152, Chapter 83 (Al-Mutaffifin): 1-3
Process			
Continuous Flow	To bring problem to surface	The concept of continuous remembrance of spending only the amount of required to avoid wasting behavior	Quran; Chapter 17 (Al-Isra'): 26-27
Pull System	Just In Time	To avoid excess utilization which by applying this is to follow the act of Satan	Quran; Chapter 2 (Al-Baqarah): 219
Heijunka	The evenness at every step of process to avoid injustice (3M; Muri, Mura, Muda)	The concept of justice and balance	Quran; Chapter 55 (Al-Rahman): 7-9, Chapter 2 (Al-Baqarah): 233
Quality right first	Right input and process produce quality product (Built in Quality-BIQ)	Built in Quality concept; "Good input + Good Process + God Bless = Good Output"	Quran; Chapter 17 (Al-Isra'): 80
Standardization	To improve the continuation and adaptation process	The concept of discipline and holding to the true guidance	Quran; Chapter 17 (Al-Isra'): 80

Visual Control	To avoid hidden problem and have superficial understanding of the situation	"You shall not accept any information unless you verify if for yourself. I have given you the hearing, the eye sight, and the brain, and you are responsible of using them."	Quran; Chapter 17 (Al-Isra'): 36
Reliable Technology	To support the continuous work flow and improve productivity	The quest for knowledge for the purpose of support and improvement	Quran; Chapter 18 (Al-Kahf): 26
People and Partners			
True leaders	A true leader develop and grow from within	To submit the task to the person who is right in the position and truly qualified	Quran; Chapter 28 (Al-Qasas): 26
Educate people	To appreciate the difference and grow the potential	The moral from Prophet Solomon who capable to organized his followers who from various background	Quran; Chapter 27 (Al-Naml): 38-41
Respect Suppliers	The concept of respect to people and long-term relationship (one big family concept)	The concept of '*silaturrahim*' among the Muslims and interactions with various parties	Quran; Chapter 49 (Al-Hujurat): 10, 13
Problem Solving			
Genchi Genbutsu	Everyone must present directly at the actual place and situation to acquire solution	The direct verification concept to solve any issue to avoid misleading conclusion	Quran; Chapter 17 (Al-Isra'): 36, Chapter 49 (Al-Hujurat): 6
Consensus	Teamwork and consensus decision making	The concept of *Musyawarrah* and *Jamaah*	Quran; Chapter 61 (Al-Saff): 4, Chapter 3 (Ali Imran): 159
Learning organization	Reflection act (*hansei*) without compromise for learning curve and improvement purpose	The concept of *Muhasabah* and *Istiqomah* to pursue towards knowledge attainment and improvement	Quran; Chapter 18 (Al-Kahf): 13

Source: Liker, JK 2004, 'The Toyota Way: 14 Management Principles from the World's Greatest Manufacturer', McGraw-Hill, New York, Liker, JK & Hoseus, M 2008, 'Toyota Culture: the heart and soul of the Toyota Way', New York: McGraw-Hill & Ali, AY 2009, 'The Meaning of The Holy Quran: Text, Translation and Commentary', Islamic Book Trust, Petaling Jaya.

To measure the effectiveness of the above module, interviews and observation studies were conducted for a period of six months, from October, 2010 to March, 2011. The participation was organization wide and motivation schedules were organized as follows:

1. Twice daily briefing session between shifts.
2. An alternate Saturday formal four hours motivation trainings which divided into two hours session for each class.
3. A monthly an overnight stay motivation program on every last Saturday of the working month.

The programs were cooperated by each sample's Human Resource Department with an appointed third party consultation company (Jabir, 2009, 2010, 2011). Teamwork, commitment, flexibility, adaptability and quality were considered within the motivation framework which aligned with the Toyota HRM framework. Self, peer and team surveillance techniques have been used to ensure the quality. Furthermore, a series of measures such as continuous process improvement, and employee involvement are contributed in obtaining this goal (Liker & Hoseus, 2008).

FINDINGS

The findings of this paper yield important insights into how the Toyota workers shared their perceptions, knowledge and understanding towards Toyota Way. This action research involved a pre and post observations within six months period. This paper provides pertinent insights which responded to the three important objectives of this study. The findings of the first two objectives will be presented in qualitative data, while the third objective will be discussed in both quantitative data and supported by relevant verbatim. The findings will be organised as follows:

Understanding level of Toyota Way Practiced

In addressing the issue, this paper will discuss on the pre-motivation and post-motivation of the employees from seven companies participated as the research samples in this study.

Pre-motivation

The findings revealed that initially the understanding levels of the employees varies based on their job positions. In general, the upper management positions including Director, General Manager, assistant General Manager and Manager showed a high understanding level of Toyota Way concepts in their companies. They viewed Toyota Way as a holistic system in the supply chain management of automotive manufacturing which based on the basic values to embark into decision making process in management cycle. Basic values such as common sense, self-reflection or *hansei*[9], and respect to people were understandings that based on humanistic values within a systematic working culture.

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[9] *Hansei* means to acknowledge your own mistake and to pledge improvement.

However, the insights from the lower management positions were quite different and this group viewed Toyota Way as a highly systematic automotive manufacturing system. It required lots of learning and training processes. In specific, as mentioned by these interviewees:

> *"At certain stage, I felt that this system (Toyota Way) is putting excessive pressures and made me feel so exhausted."* (Executive - Vendor D)

> *"This is Japanese organizational culture and Malaysians are not used to these practices."* (Supervisor - Vendor A)

This indicates the lower management positions did not view Toyota Way from the values embedded within this system, and this is the factor which recognized as the gap between the upper management group and lower management group.

Post-motivation

After six months, the analysis found that both management groups have different perspective of understanding level on the Toyota Way which they seemed to be more positive towards the concept. As shown by these quotes:

> *"…the feeling to forward further assistance and respect towards supporting or lower management group have improved."* (Manager - Vendor E)

> *"Teamwork value was the key in managing effectively and the interdependence with the lower management level is crucial."* (General Manager – Third Party Logistics)

Thus, from the quotations, understand that teamwork and respect within the Toyota Way culture are the important factors. This also indicates that the understanding level of Toyota Way has improved due to the motivation training given to the whole organizations.

More importantly, the findings indicate the lower management level perception of understanding towards Toyota Way has improved. They viewed the system as an education means that may turn them into a better quality individual. Additionally, they were also aware that the system contains values towards their beliefs as a Muslim. According to this executive:

> *"One thing that I realize…the Toyota Way is actually similar to Islam, you know…in principles and also practices."* (Executive – Vendor E)

Moreover, the lower management level seemed to agree that they needed full support from the upper management level in realizing the concepts of teamwork in particular.

> *"I am not happy with the bosses…they should show us how to work in team… they cannot expect us to do it by ourselves…it is difficult… "* (Supervisor – Vendor A)

The findings show that it is not easy for the lower management level to make changes because of their position. It limits their authority and it needs time to implement changes. Nevertheless, within the six months of conducting this research that utilized the experts from a consultant company and through HR departments of participated companies did provide significant insights on the understanding level.

The analysis found that three important criteria in enhancing the adaption to Toyota Way in practicing lean manufacturing. These include a detail and appropriate approach, full commitment, and team development planning. All these practices in turn will change the way how the employees think and perceive this system as a way of changing their mindsets. The findings support the previous study that the clear understanding of the management concept and team work are the core necessities to the organizational development which can give high impact on firm's performance and boost productivity, innovativeness, and staff morale (Lau et al, 2004).

The explanation of Toyota Way related to work environment

This section provides the findings on the process of explaining the Toyota Way to the employees.

Pre-motivation

All the interviewees agreed that there were two main methods to explain the Toyota Way; the off-job training and on-job training. According to them, they were given the explanation on Toyota Way through learning by doing or doing by example by seniors or experts about the management system. However, from the view point of the vendors, the Toyota Way concept was explained more during the on-job training method. As described by this manager:

"*Toyota Production System is a Japanese system and we Malaysian are different. They argued that this is Japanese way that was the reason the Japanese are able to do it. We are different….Japanese have the X factor and they are good follower. But Malaysians are different as we tend to do things in the way we like, tuning here and there.*"

(Manager - Third Party Logistics)

The findings suggest that in consensus the Toyota Way is acknowledged as a foreign system. The Toyota workers were not able to identify the similarities of values that connect the working principles and the life concepts. This conforms to earlier study which stated that clear explanation of the principle of the management concept is important for the employees to adapt any system.

Post-motivation

After the six-month of training, the findings revealed that the application process of explaining the Toyota Way to the employees in those companies was the same method; on-job training and off-job training. The explanation given in the motivation training had utilized the prepared module showed substantial insights. Several managers revealed that the system challenged their working and thinking abilities:

"…along the way I involve in Toyota Production System (TPS) motivation training, I feel that this system challenges me in achieving certain target. Although I could not achieve the target fully, I will keep on trying to meet that target. For me this is very challenging… and I can say that this will be a never ending battle." (Manager, Perodua)

"The system actually educates me to have better self-control. Eventually, it trains me to think of problem solutions…and this actually is a challenge on my capability and how I think..." (Assistant Manager – Vendor E)

These findings are similar to the study conducted earlier which proposed that the consciousness of the workers would help in making decisions, and stimulate their capability in challenging their minds toward intelligence attitude in learning desire, which in turn can transform them to be in a positive manner.

The impact on quality achievement upon alternative motivation approach

This section discusses the findings on the third objective of the paper which involves the impact on quality achievement upon alternative motivation approach. Table 7 shows the quality achievement via the three indicators: 1) product quality based on the numbers of defect product claims; 2) cost savings based on the implemented strategies; and 3) morale based on the employees' participation rate in organization activities, and turnover rate.

Table 5: Quality Achievement

Company	**Product Quality (Claim)**			**Cost Saving (RM)**			**Morale (Participation) & Turnover rate)**					
PERODUA												
	Pre	Post	Difference (%)	Pre	Post	Difference (%)	Pre		Post		Difference (%)	
							P	T	P	T	P	T
Shop A	477	334	-30	1,277,300	1,774,000	+28	82	4	89	2.5	6	-1.5
3RD PARTY LOGISTIC COMPANY												
	Pre	Post	Difference (%)	Pre	Post	Difference (%)	Pre		Post		Difference (%)	
							P	T	P	T	P	T
TPL A	159	81	-49	455,700	591,400	+22	77	3.3	82.5	3.0	5.7	-0.3
VENDOR												
	Pre	Post	Difference (%)	Pre	Post	Difference (%)	Pre		Post		Difference (%)	
							P	T	P	T	P	T
Vendor A	53	38	-28	38,100	64,200	+38	65	4	82	3	17	-1.0
Vendor B	42	30	-28	59,200	103,100	+54	72	2.5	90	2.0	18	-0.5
Vendor C	63	44	-30	12,000	20,200	+41	65	4	82	3	17	-1.0
Vendor D	56	29	-48	46,700	58,900	+56	78	2.5	89	2.0	11	-0.5
Vendor E	46	35	-24	34,000	38,700	+50	75	3.5	86	3.2	11	-0.3

Source: [41].

Legend:
The negative indicator (-) shows the improvement rate.
The positive indicator (+) shows the improvement rate in cost saving
P: Participation
T: Turnover

The finding on *product quality* based on the numbers of defect product claims shows various improvements were achieved by respective samples. For instance, the range of differences measured within the period of six months (during the research observation) for the Shop A in Perodua shows a 30% decline in the numbers of claim. As for the Third Party Logistics company, almost 50% improvement was achieved, while for the Vendors, the range of improvement was between 24% to 48%. As a whole, in regards to the product quality, after attending the training using the prepared module which emphasized the similarities between the Toyota Way and Islamic teachings principles, it could be said that the employees motivation to improve their quality achievement has positively changed.

Overall for the *cost savings* based on the implemented strategies, all participating companies showed improvement in terms of cost saving. The Shop A in Perodua (28%) shows a better improvement in cost saving as compared to the Third Party Logistics company (22%). While for the Vendors, the range of cost saving improvement was quite high reflecting a range of 38% to 56%. This indicates that the training using the prepared module which emphasized the similarities between the Toyota Way and Islamic teachings principles, has influenced the employees' consciousness over the importance of financial management.

As for the *employee quality* which using morale indicator based on the employees' participation rate in organization activities, and turnover rate, the findings recorded positive improvements for all participating companies. The participation rate for Shop A in Perodua improved up to 6% while the turnover rate decreased by 1.5%. Meanwhile, the participation rate for the Third Party Logistics company showed improvement of nearly 6% and its turnover rate decreased by less than 1%. For the time being, the range of improvement for the Vendors participation rate was between 11% to 18%, while its turnover rate declined by less than 1%. The findings show a strong links between the participation rate and turnover rate, whereby if the participation rate increases, so the turnover rate will decrease. The findings imply that when the employees were trained using the prepared module which emphasized the similarities between the Toyota Way and Islamic teachings principles, they show their willingness to contribute and participate in the companies' activities which in turn may develop their sense of loyalty to the company, and their inclination towards teamwork may rise, thus, they will remain working with the company.

DISCUSSIONS AND CONCLUSION

In conclusion, the study that focuses on the issue of captive mind syndrome that characterized by lukewarm attitude and reset mind setting that hinder the achievement on formation of skilled workers, and this issue is closely related to the employees' competitive advantage has contributed to the new insights in regards to the strong presence of Toyota in Malaysia automotive industry context, particularly in understanding the Toyota Way concept. The conclusions can be focused on three main issues; Employees development, Thinking revolution, and Quality achievement.

In terms of *employees' development*, it can be concluded that Toyota holistic philosophical approach is the strength of the company because it is based on kaizen and respect for people (Liker & Hoseus, 2008). The Toyota Way puts the emphasis on the employees as the most important component of the system. By practising the Toyota Way, the system requires human resources to excel and develop to be skilled workers. Thus, the system can be risky and stressful if management and workforces are not highly capable and lack of trust with each other. By taking the opportunity that Toyota plays a significant role in the development of local automotive industry through their joint venture with local manufacturer and their capabilities of developing the vendors under Toyota group of companies, their influence in the formation of skilled workers is indeed important.

In regards to the *thinking revolution*, the study concludes that for the employees to adapt the Toyota Way system, the company needs to educate the employees through trainings by focusing on the development of similarities in principles between Toyota Way and fundamental beliefs. There is a strong link between Toyota Way principles and the Islamic teachings mainly practiced by the Toyota workers. The relevancy based on the understanding that thinking revolution is fundamental in Toyota Way and this equates with the will in Islam. To achieve organizational effectiveness, Human Resources trainings must be congruent with the firm strategy and work processes, and these practices may develop the human capitals to be more competitive.

In terms of the *quality achievement*, by adapting the Toyota Way practices, the companies can ensure high level of employees' participation in any activities and events conducted by the companies, providing them with the platform for wider teamwork, allowing for knowledge sharing, and instilling strong sense of loyalty to the companies. By having all these, the potential of seeking for other employment opportunities may not be the issue because the employees have the prospect to proceed towards high achievement, thus developing them to become excellent human capital.

This research has enhanced the knowledge in the automotive industry especially on the Toyota Way system applications in an emerging market. The study contributes to the Japanese management concept in particular to the working culture among the dominant Islamic followers in Malaysia. In addition, it also provides further knowledge on the concept of quality in the work place in the relationship to the principles of Islam.

In practical, this study provides a strong urge for the policy makers in the Malaysia automotive industry to focus on soft skills development of the employees. At the moment, the local industry places so much emphasis technical capabilities and putting less attention on the personality building. In order for the local automotive industry to be competitive at global platform, the government needs to transform human capital to be more innovative and creative. As for the automotive players, the companies are suggested to outline the training programs which balance the required skill in the automotive industry with the values of life.

Future research should apply the Toyota Way module in other industries such as in service industry as well as focusing on other Muslim countries such as the Middle East countries.

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Wisdom Economics : Paths to Sustainable Growth in Thailand

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Abstract

In practice, Capitalism is a financially profitable, unsustainable aberration in human development. The basic of human capital ,such as the natural resources ,living systems, the social and cultural systems, is abandoned. In contrast, industrial capitalism focus on its capital and employment. (Hawken, Lovins and Lovins, 1999, p.5) In align with, Global economic competition is unfair. (Chang, 2007, p.219) International trade is not the best way to economic development. (Chang, 2007, p.83)
The prospect of an economic system based on increasing the productivity less caring is not economic growth as a result this paper will focus in the strengthened by Self-Sufficiency and Buddhist Economics. (Payutto, 2011, p.8)The presently existing principles cannot resolve completely the problem now encountering the world so the new paths have to be found. (Payutto, 2011, p.2)
Research Question
What are the arguments for Self-Sufficiency benefitting Buddhist Economics ?
How does Sustainable Growth converge on Self-Sufficiency and Buddhist Economics in Thailand?
What Key Success Factors will Transfer the Thai Economic Culture into Wisdom Economics ?
Hypothesis
Thai economy will be strengthened by Self-Sufficiency and Buddhist Economics during an economic crisis.
The Public sector will be more responsive than the Private sectors to Self-Sufficiency theory and Buddhist Economics
The higher the educational level, the higher the level of responsiveness to Self-Sufficiency and Buddhist Economics.
Wisdom economics (combination of Self-Sufficiency and Buddhist Economics)

Statement and Significance of the Study

"Earth provides enough to satisfy every man's needs, but not every man's greed."(Mahatama Kandhi)

In 1997, Thailand had encountered the global economic crisis, Tum Yum Kung Crisis, that occurred from the Thai economics' weakness. Thailand was then in a deep crisis, following the economic meltdown, resulting in mass unemployment, and indebtedness, with great consequences for the life's quality of the Thai people at that time. Hamburger Crisis followed after 10 years later, in 2007, until now USA and EU still are in the economic recession. The crisis effected to global economics widely.

The global economics has been driven by the western economic theories .For example, Keynesian theory and Neo-classic theory that those developed countries supported Capitalism for a long time. Given, the economic cycle (expansion-crisis-recession-recovery) occurred repeatedly. There are two major results for this. First of all, the difference between the rich and the poor is wider more and more. Second, the poorer, the greater getting the low quality of life. It's the unsustainable way at all. Furthermore, the economic crisis created the injustice, imbalance and low humanity.

To introduce the alternatives, said capitalism be the worst way is not fair. There are the fruitful results of capitalism such as cooperation, productivity, innovation, expanding opportunity, quality of life, etc. However, it is not enough and sustainable. The alternative ways help to fulfill the limitation of the western theories and shift higher meaning and the most important, quality of life.

In addition to being economically strong, the two incultural choices are offered to be the way for sustainable growth. First, inspired philosophy by His Majesty King Bhumibol Adulyadej, Sufficiency Economy Philosophy is the path to maintain the quality of life by balancing between demand and supply. Second, believed culture relativity the most Thai people, Buddhist economics that an important characteristic is "middle-way". Consequently, both of them are acceptable widely by Thai people. Therefore, acknowledgement and right understanding help them to do on the way improving quality of life.

The growing urban have been supported by the rural areas' resources. As the profit is distributed unfairly. So the inequality gap has widened and deepened while the urban development was focused by the policy maker. On the other hands, when the economy had collapsed the rural areas. I agree with Kanokkan Anukansai that it became clear that economic growth alone wouldn't solve the problem. Development, which focused on only growth at the top and ignored the bottom or the grassroots, is not sustainable. I add the distributive ideology and making it into reality in vast, necessary for the sustainable development in Thailand. I hope if we can contribute as much as fountainhead from which spring the mainstream. The power of wisdom will change the country's fundamental.

I attempt to make a contribution to this understanding, through extended semi-structured interviews I conducted with the leaders and the members of villages. Several more specific considerations are contained within this attempt. What they are, how they are constructed, and how they matter for both individual ideology , beliefs and behavior—comparatively little progress has been made on empirical grounds concerning these issues. The sustainable development of the villages depends not only on a village leaders but also on the cooperation and confidence of village members. Collective efforts to make their community independent teaches residents that they belong to their community and the villages belong to all of them. The feeling can generate collective progress towards a community's goals

Successful Wisdom Villages' experiences provide valuable knowledge. Although it's not easily adapted to Thai village context entirely. The big two questions are "Why and How"; Why did many of government's Village Fund scheme get failure? and How are Thai villages adapted to their contexts for the sustainable their own quality of lives? I desire to take a specific look at the deep characteristics, beliefs and their actual behavior both the successful wisdom villages and the failed one. Why do at least some villages not adapt the successful way? Is it because they care only themselves, selfishness or "who have the long hands, get it first" culture. Both strengths and weaknesses of these villages will be carefully analyzed and their determinants will be sought after. As Robert Putnam points out, in order to predict and understand future behavior, we have to know something about the broader—and I would add here the context of the culture can predict the most interesting future.

I hope to make a contribution toward a deeper understanding of the Wisdom Villages leadership, the most important key persons, to explore their ideology, beliefs, and actions. Especially their changing experiences are shown vividly by my in-depth studying attempt which to answer all these questions, my approach is built on view that such a deep understanding of the successful villages' belief and the ways in which they operate requires a vivid picture of what they are, what they think and what they do, in all their contextual complexity.

Finally, I want to take a specific look at what has been a contentious issue at all key factors of the wisdom villages, What are the important characteristics of the wisdom villages? How do they shape their way of life in the path of wisdom? I hope to add the understanding of both why and how such connections between their Ideology and behavior occur. My attempt to add to the understanding of the key persons who influence in the wisdom villages. I pose my deep belief in two questions: Do "Sufficiency" ideas or religion beliefs make a difference in the ways that affect the outcomes of the Wisdom Villages? And does the leadership have the strong power to guide or drive into the successfulness? Provisionally, my answer to both questions is "yes".

Research Question

1. What are the important characteristics of the Wisdom Villages?
2. How are they formed?
3. What are the key factors to change the common villages into wisdom villages?
4. Are there the patterns in the Wisdom Villages?
5. What are the strengths and weaknesses of the Wisdom Villages?
6. How do the leaders shape the belief, Ideology and behavior of their village's members?
7. What are they based on?
8. Do they spring from different frameworks?

Scope of the Study
This study focuses on identifying the factors determining the characteristics of the Wisdom Villages and analysis of their achievements that are influenced by keys factors which affected the successful Wisdom Villages in Thailand. The settings of study are chosen the outstanding successful villages in Thailand. Here are few examples of the successful villages which are Nong Wah : CP : Khun Pukdee, Nam Khaw : Kru Chob and Mai Riang : Lung Prayong Ronnarong.

Definition of terms
Wisdom Economy defined as the wisdom villages as the successful model in Thailand.

Limitation of the Study
The data collection of this qualitative research, will be employed in-depth interview technique to interview the village leaders and members. There is a general limitation imposed by the scope of study. Since the size of the universe of the successful villages in Thailand is not known, it is determined by the experts' advice and documentary study through the chosen settings, in order to maintain a manageable study. It might be difficult to do the in-depth interview all of member. However, the important key persons will be interviewed. Although it is impossible to choose all cases but the cases are chosen as much as the limits of time and budget. This paper therefore completed one study of Mai Riang Community.

This study purposes to determine all relevant important attributes of the successful Wisdom Village and to find out patterns of their characteristics. The successes will be learned from each case study and contribute the successful model for other villages. So it is not meant to appraise or assess performance of villages even Government's policy.
I am inspired by Sufficiency Economy Philosophy and I am Catholic who has given much of my faith to Buddhism. My aspiration to sacrifice my life is in the middle-way. So as a researcher, I have to inform my belief which influences me and effects this study.

Methodology
This study proposed to use qualitative methodology focusing on;
1. Documentary research, mapping exercise concept and evolution of thoughts.
2. Three Case studies to study nature of wisdom village.
3. Survey to generalize findings about wisdom village.
4. Observation the selected wisdom village.

Expected Benefits of the Study
This study based on real up-to-date phenomena will build a body of knowledge grounded from the successful wisdom villages. Although the purpose of study is not meant to involve with the policy assessment. However, the expected benefits of the study could support policy formulation on issues to strengthen the quality of life in rural.

Also, this study will yield important results for other villages in providing the successful model guidelines. It is expected that these findings could have the major factors affecting to success of wisdom villages. Which kinds of village and under what contexts and conditions are they likely to be successful? The designing and implementing community development could answer these important questions.

Wisdom Economics

Thailand and many other regions in the developing world experienced a long boom-bust cycle, the most severe of its kind. The shortening but also the intensity of boom-bust cycles have been distinctive features of the past decade. The latter is reflected, in the words of the Chairman of the Federal Reserve Board, in the fact that the “size of the breakdowns and required official finance to counter them is of a different order of magnitude than in the past” (Greenspan, 1998).Viewed from the perspective of developing countries, the essential feature of instability is the succession of periods of intense capital inflows, in which financial risks significantly increase, facilitated and sometimes enhanced by pro-cyclical domestic macroeconomic policies, and the latter phases of adjustment, in which these risks are exposed and the pro-cyclical. The presently existing principles can not resolve completely the problem now encountering the world so the new paths have to be found. (P.A. Payutto,Buddhist Economics, p.2)

The 8th National Economic and Social Development Plan (1997 - 2001) was the national development plan emphasizing on human development, community cooperation promotion in all forms, various activities performance support: community development funds partially by the government in appropriated amount for the independent decentralization and the self-reliance for a long term, etc. but failed in implementation. The Acknowledgement that the most important thing is our subjective to determine of our entire social life. On the other hand, the objective such as product is not the most important. (Boyle,1999,p.58) In align with John Maynard Keynes said that he was inclined to the belief that, after the transition was accomplished, a greater measure of national self-sufficiency and economic isolation among countries than existed in 1914 might tend to serve the cause of peace, rather than otherwise. At any rate, the age of economic internationalism had been not particularly successful in avoiding war; and if its friends retorted, that the imperfection of its success never had given it a fair chance, it was reasonable to point out that a greater success was scarcely probable in the coming years. (Keynes, 193,p.755-769)

The prospect of an economic system based on increasing the productivity less caring in natural capital, wasting resource, and destroying the earth. On the other hand, it is called economic growth. The pricing system is not rational. Indeed, lower price by destroying natural to make maximized profit is reduction. Moreover, decreasing people's quality of life to achieve higher GDP and wasting the environment to achieve economic growth is not economic growth.(Hawken, Lovins and Lovins, 1999, p.321).Responding people requirement , It's not necessary to make new theories, and needs only common sense that based on the capital appraisal. Hence, we have no right to evaluate the natural resources at all. (Hawken, Lovins and Lovins, 1999, p.321) The presently existing principles cannot resolve completely the problem now encountering the world so the new paths have to be found. (Payutto, 2011, p.2)

The different perspective of consumption, the western economics is defined by satisfaction. For example, we can eat as much as we satisfy or we have ability to pay. On the other hand, Buddhist economics get the meaning of it as the quality of life. For instance, eating is necessary for good health. (Payutto,2011,p.24)

"There is production with positive results and production with negative results; production that enriches the quality of life and that which destroys it." (Payutto,2011,p.31)In the western economics, Productivity is simply meaning as the thing produced for goods and service. By this meaning, there are the two big questions. First, Is the destructioning things, such as arms manufacture, war, and destroying one another do be productivity? Second, How can value the natural resources and environment effected by productivity? Absolutely, it's difficult to get the right and clear answers from powerful countries who created war for the economic recovery. (Payutto,2011,p.31). The economic growth has to be reconsidered as increasing in quality of life. (Payutto,2011,p.19)

The main Idea of Buddhist economics is balance or equilibrium. Another calling, middle-way is the path that not too much and too little. Accordingly, it means just the sufficient number. (Payutto,2011, p.33). To be a tiger is not important. The important thing is for us to have a self-supporting economy. A self-supporting economy means to have enough to survive. (Philosophy of Sufficiency Economy,2012) His Majesty The King commented that The crisis occurred because we expanded our production too much, with no buyers, because no one could afford to buy. In addition, the export-oriented economy left Thailand in an imbalanced situation without self-sufficiency. (Philosophy of Sufficiency Economy,2012)

Result: Mai Riang Community; An example of a Wisdom Community Leader
Local sage Prayong Ronnarong of Mai Riang village in Nakhon Si Thammarat province won the Philippines' Ramon Magsaysay Award for community leadership 2006. He is recognized for teaching and encouraging communities to stand on their own feet. His contribution began with a master plan for rubber production that led to Thailand's first community-owned rubber-processing plant that was in accordance with the philosophy of Sufficiency Economy.

Mr. Prayong is a native of Tambon Mai Riang in Chawang district of Nakhon Si Thammarat. Though finishing only Prathom Suksa 4 (fourth grade), he has followed the path of self-learning so effectively that local people recognize him as their wisdom leader, who has inspired them to learn and find ways to self-dependence instead of simply waiting for government assistance.

Mr. Prayong is truly someone special. He is a lifelong learner who devotes himself to pondering solutions without waiting desperately for others' help. He also encourages Mai Riang community members to help one another find solutions and collectively develop social innovations that serve their community. Mr. Prayong has never used money or power to secure his role as a leader but applies wisdom that he has been accumulating through learning. He knows how to learn through gathering information and applies what he has learned to achieve results that aim at a better life. He and his community dwellers help one another in integrated development, which is based on community needs and realized by community members.

From the master plan that he developed in cooperation with rubber farmers in Nakhon Si Thammarat province in 1996, Mr. Prayong later worked out a community development master plan that has become an important guideline for the government and the private sector, as well as educational institutions that want to develop poverty eradication strategies. The government has urged all tambons (groups of villages) to have their own development master plan. Mr. Prayong also pioneered a community-based enterprise that was established with the capital of his community for the sake of sustainable self-dependence and capital in this case means not only money but also resources, products, knowledge, and the social capital of his community. Today, Mai Riang has several community-based enterprises, the businesses of which are related to and support one another. They effectively cut expenses and raise income for residents.

Mr. Prayong bases his ideas for community development on his knowledge and experience. He knows that people cannot depend on outside help forever and must depend on themselves in order to survive. He has learned that, to achieve objectives, development plans must be practical, meet a community's needs, be implemented and adjusted to changing economic and social situations, and be followed up and evaluated. Community members' determination and cooperation can make this come true.

The local economic development projects that Mr. Prayong has initiated for his community have proved that Sufficiency Economy is realistic and works. Employing the sufficiency philosophy, the projects have enabled families to stand on their own feet, community members to form a network and depend on one another, and their community to introduce some competitive products to outside markets.

Mr. Prayong played an important role in developing the rubber-processing plant in Mai Riang some two decades ago. It is the first rubber-processing plant that a Thai community built with its own capital, and it is the first community-owned plant in Nakhon Si Thammarat province that does the exporting itself.

The sustainable development of a community depends not only on a community leader but also on the cooperation and confidence of community members. Collective efforts to make their community independent teaches residents that they belong to their community and vice versa. The feeling can fuel collective progress towards a community's goals.

Mai Riang community demonstrates how a community leader and community members can work together for community empowerment. Meanwhile, Prayong created a council of leaders to plan Mai Riang's future collectively. At the Mai Riang Community Learning and Development Center, he and the other leaders orchestrated cooperation between the subdistrict's rice, fruit, and rubber growers and identified other products for which Mai Riang's farmers might gain a competitive advantage: rice-flour noodles, shampoo, drinking water, and others. They scoured the country to learn the best practices of other farmers and to gather the advice of experts. In the process, they created a "master plan" for Mai Riang that promoted not only community enterprises but also education, health, and welfare measures funded from the profits of these enterprises-including scholarships for the youth and a social security fund. Today some nine hundred families are its direct beneficiaries.

The number of its indirect beneficiaries is much higher. In recent years, key elements of Prayong's community-crafted master-plan approach have been adopted as part of Thailand's economic and social development programs. They are now being applied across the country, and Prayong is frequently on call to explain how it is done.

The key, he says, is to identify "a small group of like-minded people who are willing to do something" and then to support them in every way possible. Indeed, this has been Prayong's role and today, he continues to embrace it. Despite a certain celebrity and even trips around the world, he remains true to his roots in Mai Riang, avoiding fancy hotels and other luxuries such as an automobile. "It's not money that makes me happy but to do something I really want to do," he says. "Developing the people comes naturally."

Discussion

Successful Wisdom Villages' experiences provide valuable knowledge as an example from Mai Riang community members who help one another find solutions and collectively develop social innovations that serve their community. The other community can learn and develop their community. The previous economic crisis served us as a costly lesson of unbalanced and unstable growth, partly due to the improper economic and social development process, in which the economy relied heavily on foreign capital inflows and external markets. The production sector was export-driven, aimed at earning foreign exchange. As a consequence, farmers in some areas had to buy rice for consumption, although they grew rice. This implied that fundamental structures in the country remained weak. Furthermore, with no immunity for the defenseless, unfair distribution of capital generated economic and social structural problems. Finally, moral and cultural values declined, and the deterioration of natural resources and the environment increased significantly.

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Alumni Mentorship as an Effective Learning and Development Platform for Business School's Students

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Abstract

Alumni mentorship is an effective platform for business schools to provide students with experiences, wisdoms, inspirations, and real world insights. Although several researches on mentorship have been conducted, not many focused on alumni mentorship context. Hence, this paper aims to describe how alumni mentorship program can be an excellent driver for student development in business schools based on in-depth study of Chulalongkorn Alumni Mentorship Program (ChAMP) as well as present an effective model for alumni mentorship.
<p>ChAMP is a pioneered university alumni mentorship program in Thailand, launched by Chulalongkorn Business School (CBS), one of the most reputable business schools in Thailand. Fundamentally, distinguished alumni, who are either top management of well-known corporations or were graduated from world's top universities, were assigned as mentors of selected undergraduates. While mentor and mentee were expected to continue lifetime relationship, an organizing committee was appointed to administer mentoring platform for the first 18-months period of each mentee batch.
Regarding key findings, the pre vs. post evaluation indicated that mentees have positive advancement in career goal development, career directions and preparation, and inspiration fostering. Contrariwise, there was a noteworthy observation that mentors also gained precious learning from mentees and other mentors. Most importantly, mentors were gratified with opportunity to volunteer for their alma mater. The effective alumni mentorship model and the key success indications of mentorship program are conducted and presented.

I. INTRODUCTION AND PROBLEM STATEMENT

Mentorship concept has been widely implemented in business organizations for human resources development. Generally, mentor can be a senior management or experience co-worker who can share insightful information and help mentee who can be junior employees or new incumbents to boost performance as well as adapt to organization or departmental environment. Despite the business organizations, university is another area that mentorship can effectively be taken place in the form of alumni mentorship program. Successful alumni can undertake mentor role to provide student mentee with experiences, wisdoms, inspirations, and real world insights. Most of the world's top universities especially in western countries, such as: USA and UK, are exploiting alumni mentorship program as a major platform for student development.

Nevertheless, many universities usually focus on more direct and tangible resources, such as: curriculum, facilities, and faculties for creating competitive advantage and developing their students while alumni are still untapped resources. Although many universities aim at engaging alumni to contribute for their alma mater in many ways, most ways are still in the form of monetary donation and occasional guest speakers. These ways can also be beneficial, however; the emphasis would be more on short-term and occasional basis. Indeed, alumni contribution in the form of alumni mentorship program can be more systematic platform to directly integrate successful or high potential alumni to develop the current students, while perhaps involve them to share idea and feedback with university management on future important development.

In Thailand, alumni mentorship is still very young and new concept while university's alumni mentorship program is still very rare. Hence, it is worthwhile to conduct in-depth study on the case of alumni mentorship program in Thailand to explore on this innovative platform for student development. Significantly, the case study in this paper is based on Thailand context that is fairly different from that in western context, therefore; higher education institutes in Thailand or Asia may apply this study in conducting alumni mentorship program. Indeed, this paper reconnoitered the new arena of mentorship program by deeply focusing on alumni mentorship based on Asian context given the case study from Thailand. Findings from the study can be an illustration of effective alumni mentorship and exemplified model for other contexts. Finally, the ultimate outcome is to introduce and develop effective model that can bring alumni, which are still untapped resources of educational institutions, to directly contribute and involve in developing students. Thus, this can be an opportunities to enrich overall national higher education system.

In this study, three major arguments will be presented.

1) Alumni mentorship can develop students in business school on career and inspiration aspects.
2) Not only mentees gain advantages from the program, alumni mentors also perceive intrinsic value from mentoring, such as learning from student perspectives and university support.
3) Formal organizing committee body can ensure constant quality of mentorship.

This paper will initially begin with definitions of mentorship. Subsequently, research questions and methodologies will be laid out. Afterwards, the case of Chulalongkorn Alumni Mentorship Program (ChAMP), which is the unit of study, will be discussed. Then, most importantly, the findings and recommendation from the study will be presented. Finally, possible further study and researched limitation will be clarified.

II. DEFINITION

Mentorship concept is derived from a word "Mentor", which was firstly described in Homer's story of The Odyssey. In the story, Mentor was a person, who took care of Odyssey's son, Telemachus, while Odyssey was away for the war of Troy. Mentor had done important roles as teacher, coach, advisors, and even surrogated father to Telemachus and raise him to be grown up (Owen, 2011). This is the origination of mentor. Nevertheless, Poulsen (2013: 261) interestingly stated comprehensive mentoring definition based on learner's perspective quoted as:

"Mentoring is a learning partnership between two people with different levels of experience and with the potential to achieve new learning, new insight and personal growth. Mentoring is about creating synergy between two people in a learning alliance." (Poulsen 2013: 261).

In organizational aspect, mentorship is a powerful human resources development tool. Bozeman and Feeney (2007) suggested that mentoring is transfer and sharing of knowledge, wisdom, social capital and psychological support from mentors, the highly experienced persons, to mentees, the less experienced person. After all, mentor can support mentee for career advancement (Scandura, 1992). For instance, mentors can help mentee develop clear goals, capabilities and direction to derive their performance and advancement (Moore, Millers, Pitchford, and Jeng 2007). In turn, mentors can benefit from the mentoring process by learning leading and mentoring skills, creating trustworthy relationship and shaping their attitude (Rekha and Ganesh 2012).

Referred to Ragins and Kram (1985), mentor can perform two functions for mentee including career function, which focuses on advancement in work, and psychological function, which is more on relationship, motivations, inspirations, and emotional supports. Owen (2011) identified distinctions between coaches and mentors as coach role is to ask the right question and guide the person towards good directors or solve the problem so background experience in the field is not a prerequisite. Additionally, coaches focus mainly on task-based performance improvement while mentors focus more on long-term potential development.

III. RESEARCH QUESTIONS AND METHODOLOGIES

In this paper, various mentorship perspectives were explored to identify model of effective alumni mentorship program for student development in business schools based on research and study of Chulalongkorn Alumni Mentorship Program (ChAMP) per following research questions.

1) How alumni mentorship program can be an excellent driver for student development in business schools?
2) What are learning and development outcomes of mentee derived from alumni mentorship process?
3) What are underlined expectations and feedbacks of mentor and organizing committee towards alumni mentorship platform?
4) What are recommended indications that effectively assess the performance and outcomes of alumni mentorship program?
5) What could be generic model for conducting alumni mentorship program in university level that can foster effective learning scheme for students?

Regarding methodologies, case review of Chulalongkorn Alumni Mentorship Program (ChAMP) will firstly be conducted. Then, the perspectives including mentee, mentor, and organizing process will be taken into consideration. Regarding mentee learning perspectives, the pre vs. post evaluation from ChAMP Mentee will be assessed and statistically analyzed using Two Tailed Wilcoxon Test. Additionally, observation from meeting session between mentor and organizing committee of ChAMP will be examined in order to gain insights on underlined expectation and program feedbacks. Finally, all findings and analysis of this information will be formed as a recommendation for effective mentoring model and important success indication of alumni mentorship program.

IV. CASE STUDY OF CHULALONGKORN ALUMNI MENTORSHIP PROGRAM

Chulalongkorn Alumni Mentorship Program (ChAMP), which was recently originated by Chulalongkorn Business School (CBS), one of the most reputable schools in Thailand regarded as the first full-scale alumni mentorship program for universities in Thailand. A group of distinguished alumni from CBS initiated this program in 2012 with highly collaborative support from the faculty. Main purpose of this origination was to utilize wisdoms and experiences from CBS alumni to enrich student learning and potential career development.

There are many reasons why ChAMP was brought as a noteworthy case study for alumni mentorship program. First, ChAMP was newly developed program, therefore; many concepts and processes were freshly developed with clear objectives and expectation. These clear foundations and concepts at the beginning are important for effective mentoring (Anderson and Shannon, 1988). Researchers could gain original viewpoints of mentorship from each stakeholder. In other words, as-is mindsets and preoccupied assumptions were mitigated. Second, access to in-depth feedback and observation is feasible as the researcher is an organizing committee who highly involved in this program from start-up planning to implementation. Thus, the researcher can apprehend mentoring big pictures and gain wide-ranging perspectives by observing from real case that actually happened rather than only interpreting general documents.

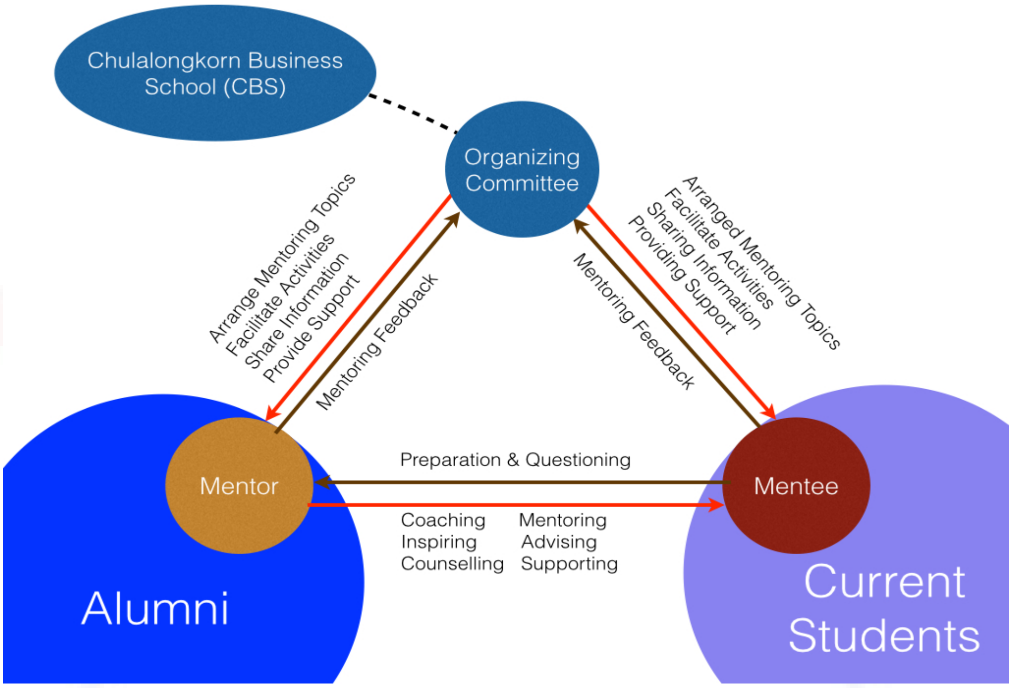

Figure 1: ChAMP Model

The figure 1 illustrated ChAMP model. Basically, Board of CBS appointed an organizing committee to oversee ChAMP program and mentoring process. On the other side, CBS is consisted of alumni and current students. Not all alumni were mentors and not all students were mentees. There were selection processes and criteria for recruiting mentors and mentees. This point will be elaborated further in this paper. Fundamentally, roles of mentors were set to coach, mentor, inspire, advise, counsel, and support mentees while mentees were also instructed to prepare themselves for mentoring, such as: bringing up their interested topics, searching career information, and forming questions.

ChAMP had an interesting aspect that was different from other alumni mentorship program, that is roles of organizing committee. In many cases, alumni mentorship programs were focusing on setting platform for mentors and mentees to freely meet and set up their relationship and topics to discuss on their own while there is small scale of administrations mainly for matching and maintaining channel. However, in ChAMP, the organizing committee plays essential roles to arrange mentoring topics for each period, facilitate activities for all mentees in the program, share useful Information to mentors and mentees, provide support in case any further resources needed, and obtain in-depth mentoring feedback for analysis and assessment. Hence, there is a full-scale work and support for ChAMP organizing committee. The effort that ChAMP organizing committee put in the first six months to plan and establish ChAMP program in 2012 was approximately 123 hours in total. Remarkably, all ChAMP organizing committee members are working on non-profit basis as real volunteers. The organizing committee is consisted of dedicated alumni and faculty members.

ChAMP Mentor

Top-level management of organisations:
- Chief Executive Officer (CEO)
- Chief Financial Officer (CFO)
- Managing Director (MD)
- Partner
- Senior Executive Vice President (SEVP)
- Executive Vice President (EVP)
- Head of Department
- Director
- Successful Entrepreneur

Strong Academic Background
- Top Class Business School in the world (i.e. Top 20 U.S. Business School)
- Highly Reputable Specialised School

ChAMP Mentee

Two Round Selection Process:

First Round: Selection from Application
- Academic Performance (i.e. Grade)
- Extra-Curricular Activities and Experience
- Essay Question
- Recommendation

Final Round: Selection by Mentors
- Candidates were required to attend seminar while mentors observed candidates during the workshops.
- Mentors reviewed candidate's profiles.
- Interview session.

Figure 2: Criteria for mentor and mentee selection

There were various criteria for selecting mentors and mentees (Figure 2). To ensure that mentors are alumni, who are well rounded and highly capable in suggesting mentees into appropriate direction. Alumni mentors must be either entitled as top-level management of organizations or had strong education background. Current ChAMP mentors are composed of top management positions from reputable firms in many business areas including Chief Executive Officer (CEO), Chief Financial Officer (CFO), Managing Director (MD), Partner, Senior Executive Vice President (SEVP), Executive Vice President (EVP), Department Director, and Successful Entrepreneur. Additionally, there are also young mentors who graduated from top class and highly reputable business school in the world.

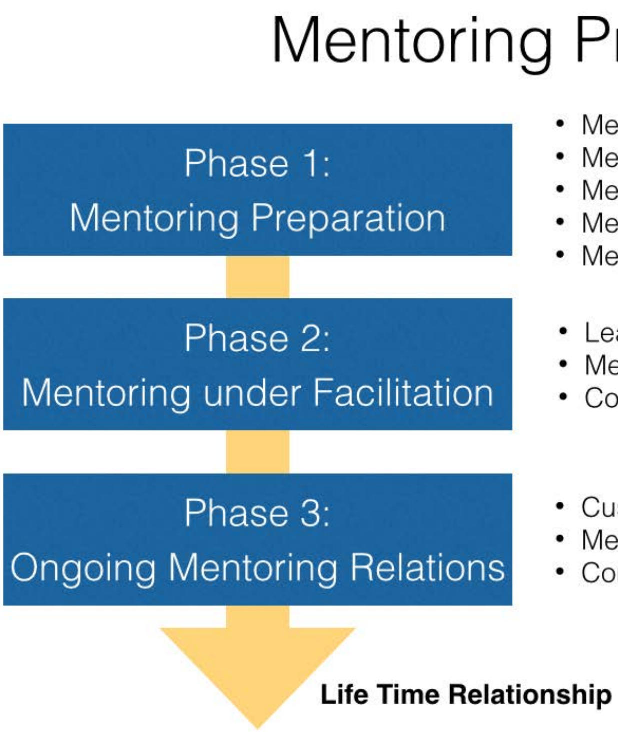

Figure 3: ChAMP Mentoring Process

ChAMP mentoring process has been divided into three main phases (Figure 3) as follows:

Phase 1: Mentoring Preparation (3 months)

Since mentoring is still very new concept in Thailand, it is very crucial to carefully select mentors and mentees as well as educate them how to create and continue effective mentoring relationship in order to reach the best results in learning and development. Furthermore, matching model between mentors and mentees is another vital issue as it determines compatibility, resulted in ongoing relationships. In this phase, organizing committee had arranged the following activities.

1. **Mentor Recruitment**

   Mentors were selected from distinguished alumni who entitled top management position or had strong academic background through nomination and recommendation process.

2. **Mentee Recruitment and Selection**

   Firstly, the organizing committee organized ChAMP open house event to educate and introduce idea of alumni mentoring. Additionally, program objectives and key benefits were highlighted while selection process, criteria, and procedures were clearly explained. Afterward, students were encouraged to apply for the program.

   Secondly, there was the first round selection conducted by organizing committee. Applicants were required to submit application with detailed resume and answer

the essay questions. Henceforth, final round candidates were selected by thorough consideration on academic performance, extra-curricular activities, background experiences, essay questions, and recommendation letters.
Finally, the final round candidates were required to attend ChAMP mentee candidate seminar in which mentors were coming to observe candidates during the seminar workshops. Mentors had to make final decision to select candidates as their mentees by observing candidate performance during workshop, reviewing candidate profiles, and interviewing the candidates.

3. Mentor Orientation

Although mentors were experienced alumni who are in the top position, mentor orientation is still a mandatory. Indeed, being a mentor is much different from being a manager. Therefore, organizing committee arranged the session that an executive coach conducted mentorship training. Moreover, the dean was invited as a keynote speaker for this orientation to update facts on current students and their generation as well as the current faculty information. Along with the orientation, mentors were having chances for networking and pairing with each other.

4. Matching and Mentoring Model

This was a key challenge as there is obviously a big gap between students and alumni in terms of both age and experiences. Especially, seniority gap is an important issue in Thai culture. Therefore, the organizing committee widely discussed and found that group mentoring is the most suitable model. Having mentors paired up with each other then grouped with four to five mentees mitigated lots of challenges. For example, mentees were more comfortable in discussing and sharing in a group situation rather than one-on-one situation. Furthermore, in case of very senior mentor was in the group, the less senior mentor could play mediator role by facilitating the discussion. Ultimately, having two mentors in one group fostered career diversity and widened perspectives. The ratio of ChAMP group mentoring between mentors and mentees is either two to four or two to five solely based on how mentors in each pair preferred and agreed upon.

Regarding matching model, the method so called “first and final call” was utilized. Basically, mentee candidates did the first call, as they had chance to rank their preferred mentor by reviewing profiles and backgrounds before the final selection day. Consequently, mentors did the final call, as they had got the selected list and profiles of candidates, who indicated their name on the top preferences. Basically, mentors could firstly consider those candidates on the list, however; mentors could also select other candidates, who are not in the list, if they preferred to do so. All decision was totally up to mentors in each pair while the organizing committee did not play any active roles in final selection. The organizing committee highly respected and relied on mentors decision and judgments.

As a resulted, mentors had sense of ownership as they were selecting mentees on their own calls. Also, mentees were also given opportunities to designate their mentor preferences. These helped nurturing long-term relationship in each mentoring group in long run.

The key figures and information of ChAMP for both the first batch (Year 2012) and second batch (Year 2013) were presented in figure 4.

	ChAMP#1 (2012)	ChAMP#2 (2013)
Applications Submission	200	158
First Round Candidates	55	79
Selected Mentees	41	57
No. of Mentors	20	26
No. of Mentor Pairs	10	13
Mentees per Mentor Pair	4.1	4.4

Figure 4: ChAMP Key Figures and Information

5. Common ground

The organizing committee also initiated code of ethics for mentors and code of conducts for mentees. Both code of ethics and code of conducts were presented to both mentors and mentees as ground rules and agreements for the ongoing mentorship relations. For examples, the issue such as conflict of interest, sexual harassment, and privacy had clearly been addressed in the codes.

Phase 2: Mentoring under Facilitation (9 months)

After mentoring model had been setting up and all stakeholders understood mentoring direction and common ground, it was the timing to kick-off mentoring. In this phase, mentors and mentees were required to have a mentoring meeting at least once a month. However, during this period, the mentoring topics were planned and arranged by the organizing committee to ensure everyone are on the same pace with proper direction and well-defined objectives.

Figure 5: ChAMP Topics and Sub Activities

According to figure 5, the topics were arranged as follows. The first topics were about goals, career path and inspirations, in which mentees could learn from career experience sharing by alumni as well as had opportunities to meet mentors in various career to learn more about different career options in “career roundtable” activity. Along with the first topic, outing activity was arranged to establish good relationship between mentors and mentees as well as open opportunities to have cross mentoring with mentors from other groups.

Thenceforward, the second topic was career preparation, in which mentees had to search information about organizations or career paths they interested, then discussed with mentors on how to make good preparation for entering this career. Besides, mentors also reviewed mentee’s resume and conducted mock-up interview for mentees at their own office so mentees could experience situation that they would face in the real interview.

Lastly, the third given topic was career first-step, in which mentors advised mentees on work attitudes and behaviors that lead to career achievement. Essentially, this topic was given along with the timing that mentees had to enter the first job or get interned so that they could have a good start for career. Moreover, the company visit had been conducted, enabled mentees to understand how business works. Besides, there was a career dinner talk session for all mentees to share and discuss their career plan with mentors and organizing committee.

An interesting observation on this phase was the fact that most monthly mentoring meetings between mentors and mentees in each group were conducted in an informal setting, mostly, during dinner or luncheon. This enabled open communication and fostered lively atmosphere. Conversely, sessions conducted by the organizing committee for all mentees in the program were more structured to ensure everyone clearly understand big pictures, directions and key takeaways.

Phase 3: Ongoing Mentoring Relations (6 months)

After the mentoring platform for the batch was on the good shape, the organizing committee would step back and let mentoring meeting depended on mentors and mentees in each group to agree upon topics they were interested to discuss. Furthermore, the organizing committee still provided support if necessary. However, the main attention would be shifted to the mentoring preparation phase of the next ChAMP batch. Ultimately, the expectation was that mentors and mentees could establish lifetime relationships and still maintain good rapport and conversation even until the next ten or twenty years. Eventually, it would be highly cherished if mentors and mentees could return to contribute to alma mater to develop and support next generation students.

In conclusion, ChAMP program is largely different from typical alumni mentorship programs. First, ChAMP has full-scale organizing committee combined of distinguished alumni and faculties to oversee the process and conduct strategic planning while usually other programs may have only administration team for transactional jobs. Second, ChAMP mentoring model is a group mentoring while other programs are mostly one-on-one mentoring. Third, ChAMP matching model allows both mentors and mentees to make their calls to create sense of ownership while other programs may collect information and preferences from mentors and mentees then do the matching either by administrations or computer systems.

V. KEY FINDINGS

The findings of this study can be categorized in three major perspectives, including the viewpoints from mentee, mentor, and organizing matters. Different source of information and methodologies were applied.

Mentee perspective

In the viewpoint of mentee, the most important issue to tackle is whether the mentoring process in ChAMP improves learning and development of mentees or not. Therefore, pre vs. post evaluations were given to mentees to assess themselves on different angles. These angles were constructed as variables for pre and post evaluation testing using Wilcoxon Signed Rank Test.

Five points likert-scale was in used to assess on these above angles. The variables and definitions were set as follows.

Variables	Mentee Pre-Assessment	Mentee Post-Assessment
Short-term Goals	STG1	STG2
Medium-term Goals	MTG1	MTG2
Long-term Goals	LTG1	LTG2
Career Path	CRP1	CRP2
Drive	DRV1	DRV2
Inspiration	INS1	INS2
Sharing to others	SHR1	SHR2

Figure 7: Testing Variables

Short-term goals: The extent that mentees think they have or are clear about main goals they would like to achieve within this one year.

Medium-term goals: The extent that mentees think they have or are clear about main goals they would like to achieve during next two to five years.

Long-term goals: The extent that mentees think they have or are clear about main goals they would like to ultimately achieve in their lifetime.

Drive: The extent that mentees think they are self-motivated to pursue their goals.

Inspirations: The extent that mentees think they are inspired to pursue their goals

Career Paths: The extent that mentees think they understand and have clear direction about their future career path.

Sharing to others: The extent that mentees think they share useful information or good learning to other people for the benefits of others.
The variables were symbolized as per following figure 7 while number one (1) and number two (2) were put at the end of variables to identify pre-evaluation and post-evaluation status, respectively. The post-evaluation was assessed after mentoring had been started for six months.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
STG1	41	3.22	.881	2	5
MTG1	41	2.85	.823	1	5
LTG1	41	2.85	1.038	1	5
CRP1	41	2.83	.946	1	5
DRV1	41	3.24	.916	2	5
INS1	41	3.17	.803	2	5
SHR1	41	2.90	.860	1	5
STG2	33	4.30	.770	2	5
MTG2	33	3.64	.489	3	4
LTG2	33	3.30	.684	2	5
CRP2	33	3.70	.728	2	5
DRV2	33	3.91	.805	2	5
INS2	33	4.00	.612	3	5
SHR2	33	4.12	.740	3	5

Figure 8: Descriptive Statistics

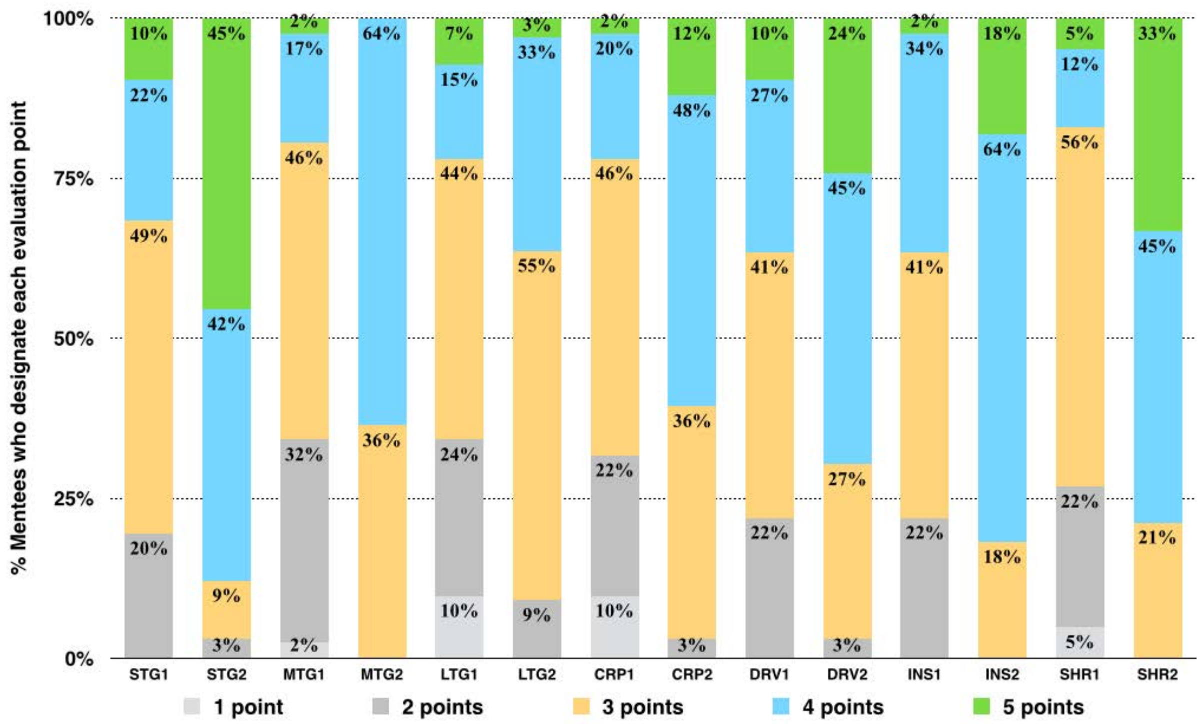

Figure 9: Mentee Evaluation Scoring Distribution

According to figure 8, the descriptive statistics is presented. Noticeably, the figure 9 obviously shows that the distribution of post-evaluation score given by mentees was meaningfully changed from pre-evaluation score. Comparison between pre and post status for each pair of variables clearly shows improvement of mentees self-evaluation scoring as mostly score of two and three points were given in pre-evaluation while score of four and five points were given afterwards in the post evaluation.

Wilcoxon Signed Ranks Test

Ranks

		N	Mean Rank	Sum of Ranks
STG2 - STG1	Negative Ranks	3[a]	6.50	19.50
	Positive Ranks	22[b]	13.89	305.50
	Ties	8[c]		
	Total	33		
MTG2 - MTG1	Negative Ranks	4[d]	8.50	34.00
	Positive Ranks	20[e]	13.30	266.00
	Ties	9[f]		
	Total	33		
LTG2 - LTG1	Negative Ranks	3[g]	12.50	37.50
	Positive Ranks	15[h]	8.90	133.50
	Ties	15[i]		
	Total	33		
CRP2 - CRP1	Negative Ranks	2[j]	15.75	31.50
	Positive Ranks	25[k]	13.86	346.50
	Ties	6[l]		
	Total	33		
DRV2 - DRV1	Negative Ranks	3[m]	11.00	33.00
	Positive Ranks	18[n]	11.00	198.00
	Ties	12[o]		
	Total	33		
INS2 - INS1	Negative Ranks	3[p]	9.00	27.00
	Positive Ranks	22[q]	13.55	298.00
	Ties	8[r]		
	Total	33		
SHR2 - SHR1	Negative Ranks	1[s]	17.50	17.50
	Positive Ranks	25[t]	13.34	333.50
	Ties	7[u]		
	Total	33		

a. STG2 < STG1
b. STG2 > STG1
c. STG2 = STG1
d. MTG2 < MTG1
e. MTG2 > MTG1
f. MTG2 = MTG1
g. LTG2 < LTG1
h. LTG2 > LTG1
i. LTG2 = LTG1
j. CRP2 < CRP1
k. CRP2 > CRP1
l. CRP2 = CRP1
m. DRV2 < DRV1
n. DRV2 > DRV1
o. DRV2 = DRV1
p. INS2 < INS1
q. INS2 > INS1
r. INS2 = INS1
s. SHR2 < SHR1
t. SHR2 > SHR1
u. SHR2 = SHR1

Test Statistics[a]

	STG2 - STG1	MTG2 - MTG1	LTG2 - LTG1	CRP2 - CRP1	DRV2 - DRV1	INS2 - INS1	SHR2 - SHR1
Z	-3.915[b]	-3.446[b]	-2.123[b]	-3.932[b]	-2.944[b]	-3.795[b]	-4.091[b]
Asymp. Sig. (2-tailed)	.000	.001	.034	.000	.003	.000	.000

a. Wilcoxon Signed Ranks Test
b. Based on negative ranks.

Figure 10: Wilcoxon Signed Ranks Test Results

According the statistical test by Wilcoxon Signed Rank Test, the results are shown in figure 10. The test is basically comparing the status between pre vs. post of the same samples. The positive ranks show the number of samples that indicated post score higher than pre score while negative ranks mean the number of samples that indicated post score lower than pre score. Also, ties refer the sample that indicated pre and post with the same score. From the analysis, most mentees recognized the improvement in learning and development on all assessment variables, as positive ranks were mostly higher than ties except the case of long-term goals, which is equal, while the negative ranks is very rare case.

Henceforth, in general, the pre-post evaluation indicates positive learning and developments from ChAMP mentoring process. Additionally, Mentees are mostly improved in career development and sharing attitudes then followed by short-term goals and inspirations. These are expectable due to strong career background of mentors as well as assignments and session arranged by organizing committee to ensure mentees can actually apply the learning directly to properly start their career. Anyway, long-term goal is the area that mentees were least improved. Perhaps, it would be challenging for mentees to apply their learning in mentoring process in just only six months to shape the practical long-term goals, however; this is something that mentees could work along the way of their life and career to find what exactly ultimate goals in their life. Notably, according to figure 10, the Wilcoxon Signed Ranks Test on all these variables is statistically significant at 95% confident level.

Organizing perspective

The key findings on organizing perspective are mainly derived from feedback session between the organizing committee and mentors (observation, December 13, 2012 and June 17, 2013), in which feedbacks and concerns were largely discussed for further development.

First of all, the fact that mentees were carefully selected through numerous processes allowed the program to get high potential mentees. As a result, this minimized gaps between alumni and students. Although mentees had much less experiences than mentors, they could well understand the context and frame their own thoughts and application.

Secondly, the group mentoring and ratio between mentors and mentees (2:4 and 2:5) was suitable. Most mentors stated that group mentoring fostered good atmosphere on sharing and discussion as well as mentees could also learn from each other's questions and viewpoints.

Thirdly, monthly mentoring meeting was a suitable frequency, which allow good continuity but not take too much time.

Fourthly, mentoring topic arrangements and guidelines by organizing committee were helpful so the direction and expectation is clearly given and laid out. Additionally, mentors suggested that cross mentoring and joint mentoring among different mentors or mentoring groups can be great potential for future mentorship as mentees could learn and establish relationship from many of other mentors in the program.

With pre-arranged activities and designated topics, mentors and mentees were continuously met around ten meeting on average during nine months period, which is considerable frequent (at least once a month). In short, it can be concluded that ongoing arrangements provided clear timeframe and milestone for mentoring process, resulted in constant learning and outcomes of all mentee in the program.

Mentor perspective

In spite of mentees, mentors also gained valuable learning and intrinsic benefits from being mentors in ChAMP. According to mentors' feedbacks (Observation, December 13, 2012 and June 17, 2013), most mentors highly appreciated relationship and network among alumni during the mentorship program. As a resulted, mentors felt that they also broaden their perspectives by learning from other mentors. Besides, mentors viewed alumni mentorship program as a powerful platform for contributing and returning back to their alma mater despite financial contribution.

Most importantly, mentors were gratified with this opportunity to volunteer for their alma mater. In addition, mentors mentioned that they learnt from mentees, as they gained understanding on new generations' viewpoints, kept updated with new trends and fresh ideas from young people.

With that, 75% of Mentors from ChAMP#1 (Year 2012) accepted to be mentors in ChAMP#2 (Year 2013) although they need to continue taking care of mentees for both batches. Moreover, mentors and organizing committee believed that both mentors and mentees could be change agents for further business school and university development through collective collaboration between alumni and the faculty.

VI. RECOMMENDATIONS

Perhaps, the most challenging question is how to measure success of mentorship. Some might focus on mentee evaluation while some might focus on career result. Nevertheless, there are various aspects to consider when assessing the success of mentoring program.

Area of Assessment \ Beneficiaries	Mentee / Student	School / University
Process	**A1. Meeting Frequencies** • Mentoring Session • Other Events	**A3. Participation** • Mentor Return Rate • Faculty Involvement
Result	**A2. Learning Outcomes** • Pre-Post Evaluation • Achievements	**A4. Contribution** • Alumni Contribution • Mentee Contribution

Figure 11: Key Success Indications Model

According to figure 11, the success indication of mentorship program can be divided into two dimensions. The first dimension is area of assessment whether the focus is on mentoring process or result. The second dimension is beneficiary whether it is benefit in the level of mentees or the entire school and university.

In the area A1, meeting frequencies can be used as an indicator to assess the mentoring process. The proper meeting frequencies between mentors and mentees, in either group mentoring meeting or other events, such as: outing, would ensure opportunities for interaction and good sharing. The area A2 focuses more on results of mentoring for mentees, the learning outcomes. This could be measured by pre-post evaluation or mentee achievements after mentoring.

Nevertheless, the area A3 and A4 broaden the perspectives by bringing up benefits to the higher level of entire faculty or even university. In the area A3, participation is very crucial as it confirms the smoothening and captivating processes that can attract more alumni and faculty members to join and contribute further. Numbers of mentors who return to be mentors in the program and involvement level of faculty members are the potential measurement.

Lastly, the area A4 focuses on the result that would actually happen to the whole faculty or university. Ultimately, alumni mentors and student mentees can work collectively to contribute to the faculty or university in other capacities to broaden beneficiaries not only mentees in the program but also the whole students in the faculty and university.

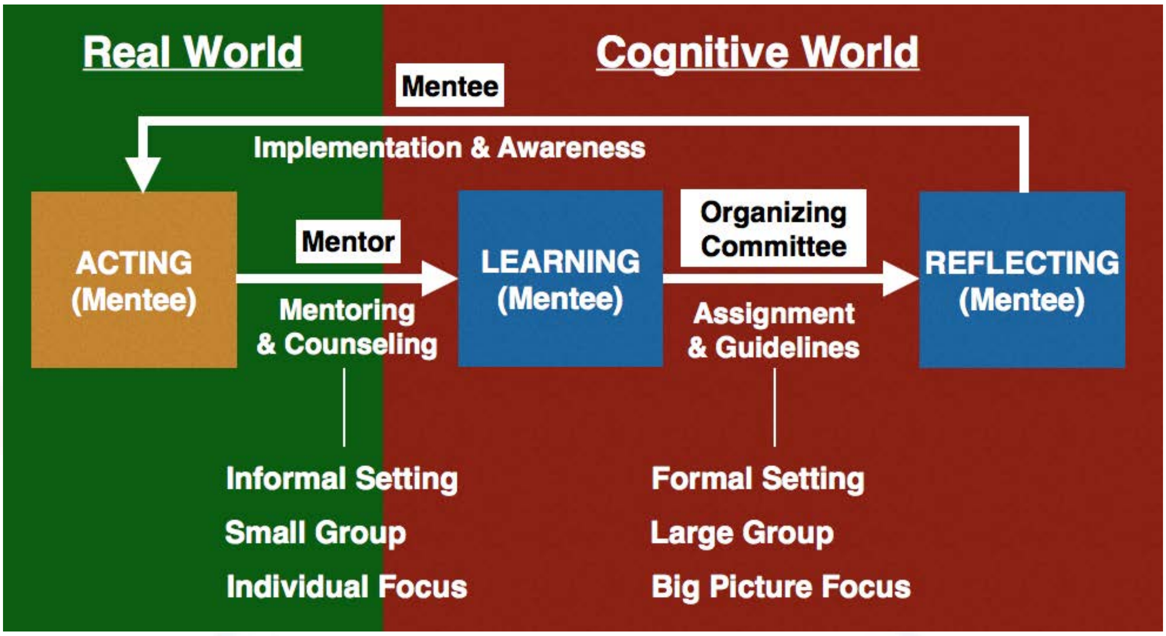

Figure 12: Effective Mentoring Loop

Despite the key success indicators, the generic model of effective mentoring has been constructed as a recommendation. This model is derived from study and observations of ChAMP and named as "Effective Mentoring Loop" as shown in the figure 12.

In this model, there is a real world that people act and do things in life and career while there is also cognitive world that people learn and reflect with themselves for development. Applied to mentee case, mentee also acts in the real world whether to study and search for jobs. Afterwards, with the mentoring and counseling from mentors, mentee would gain precious learning and extend viewpoints. Nevertheless, the setting is also an important factor. It should be informal by arranging in small group. Also, the focus should be on individual mentees that customized to their goals, inspirations, and underlying preferences.

However, after mentee obtains lots of learning in different means and aspects from mentors. It is important that organizing committee stepping in to put things into order. Formal assignments and guidelines could lead mentees to reflect about their learning and shape their thoughts to the proper direction and potential direct application of learning. Anyway, this setting should be more formal and conducted in large group so that all mentees in the program can see the big pictures and have clear direction.

After all, mentee would be the person who must be attentively aware on mentoring learning and reflection then implement in real world by taking action. This loop continues after mentee applies learning in real life and finds out new challenges. Thenceforth, mentee comes back to undergo learning and reflecting process with mentors as well as organizing committee once again.

VII. LIMITATIONS AND FURTHER STUDIES

This study is limited to only the case study of ChAMP because of many reasons. First, ChAMP is the only full-scale alumni mentorship program in Thailand at this point so there was still no opportunity for comparative analysis with other programs in the same context. Second, it must be noted that in-depth study is prerequisite to understand mentoring process. The study could not be only derived from reviewing documents of mentoring program and quick interview with participants, but also deep involvement is very essential.

With in-depth involvement, researcher can listen to real feedback along the process, comprehend the student improvement from day one, and clearly examine the rationales and intentions. Anyway, this process of in-depth involvement required substantial time and effort.

However, for further studies, comparative study of alumni mentorship program in different countries or regions is highly recommended. Additionally, future researchers may continue studying ChAMP program across time-series by comparing different batches and highlight key driving factors. More qualitative study on mentee learning insight is also suggested.

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From asset exploitation to asset exploration – Some evidence from Chinese acquisitions of Made in Italy firms in the luxury sector

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Abstract

Outward Foreign Direct Investments (OFDI) from emerging economies have begun to increase significantly and have been growing at a faster pace than FDI from the developed world. The research seeks to assess the impact of Chinese acquisitions and their implications for the Made in Italy luxury sector and its firms. This paper presents the preliminary results stemming from a single case study on a Chinese acquisition in order to provide some in-depth insights over the influences and the motives driving Chinese firms to invest in the luxury Made in Italy, the patterns and modes of the Chinese acquisitions as well as the competitive strategies and the distinctive challenges that both investors and acquired firms have to face. From the findings, it emerges that both the investor and the acquired firm need to overcome several key challenges if they want to mutually benefit from the acquisition.

1. INTRODUCTION

While traditionally Foreign Direct Investments (FDI) have flowed from the advanced developed economies into developed and developing countries, more recently, a new trend has emerged in the pattern of FDI. Outward FDI (OFDI) from emerging economies have begun to increase significantly and have been growing at a faster pace than FDI from the advanced developed world. Increasingly nowadays Multinational Corporations (MNCs) from Newly Industrialised Countries (NICs) are buying business assets and capabilities in the luxury sector all over Europe.

Italy has a traditional competitive advantage in the production of luxury products (Vecchi, 2008, 2013). The Italian luxury market has been long been regarded as the origin of mainstream luxury goods and includes brands like Ferragamo, Prada, Gucci just to name a few. With a rich cultural heritage embedded within their brands, these firms have captured loyal customers and remarkable profits from all over the world. In Italy, luxury brands are deeply rooted in their design, quality, artisanship and service and it has often taken decades to build their reputation. These features often appeal to those who want to instantly build a luxury brand such as the Chinese investors.

This paper presents some preliminary results of a case study of a Chinese acquisition to provide some in-depth insights over the influences and the motives driving Chinese firms to invest beyond their borders and in particular into the luxury Made in Italy. The case explores the patterns and the modes of Chinese acquisitions as well as their competitive strategies and the distinctive challenges that both the investor and the acquired firm inevitably have to face. The paper comprises six sections. The first section provides an introduction covering the background of the research and outlines its rationale. While the second section reviews the relevant literature, the third section provides a description of the methodology. The fourth and the fifth section respectively deal with the findings and the conclusion. The original contribution of the research, the managerial implications of its findings, limitations and directions for further research are also discussed in the concluding section of the paper.

2. OFDI FROM EMERGING COUNTRIES

The Chinese acquisitions affecting the luxury Made in Italy sector are emblematic of a wider trend. Many emerging economies have benefited from a massive infusion of capital, technology and managerial expertise from the traditional industrialized countries (Rios-Morales and Brennan, 2010). Because of this and other factors, companies in some of these countries have amassed sufficient capital, knowledge and know-how to invest abroad on their own. The proportion of FDI accounted for by NICs is increasing. A variety of reasons has been offered for the emergence of FDI from NICs (Rios-Morales and Brennan, 2010). These include the support of exports, the expansion of market presence, the acquisition of established brands and foreign skills and the establishment and strengthening of local distribution networks. The increasing financial strength and the growing international exposure of companies from NICs together with greater domestic competition have also been suggested as explanations. Finally, the goals of building international brands, accessing advanced technologies and establishing R&D centres in developed countries help to explain this growing trend.

The surge of FDI in recent years has generated a growing body of literature on FDI with the theory of internationalisation and the Eclectic Paradigm widely utilized. The theory affirms that the extent and pattern of international production undertaken by MNCs is determined by the interaction of three sets of interdependent variables: Ownership, Localization and Internalization advantages, resulting in the abbreviation and alternative name of the eclectic paradigm, namely the OLI paradigm (Dunning, 2006). The first competitive advantage represents the ownership (O) of specific resources to be exploited externally. The second element of the OLI paradigm regard the host country location attractions (L). Rugman (1981) defines the L-advantage as the Country Specific Advantage (CSA) that is unique to the business in each country. With regard to the last variable of the paradigm, the internalization (I) advantages involve the opportunity to keep firm specific resources within the company rather than to exploit them in the market through arm's length transactions (Amighini et al., 2010). The OLI variables explain why internationalization occurs but do not identify the process of internationalization. Thus, the eclectic paradigm has been subsequently extended to include the theory of the Investment Development Path (IDP) that was first put forward in 1975 and since then it has gone through various iterations (Dunning, 1981, 2006; Dunning and Narula, 1996).According to this theory, companies engage in FDI not only to exploit their existing O-advantage in a host location, but also to augment the advantages by acquiring complementary assets or new markets (Dunning, 2006). Both theories identify the institutional environment as one key factors for internationalization, however, the focus is generally on the recipient country only.

Differently, Mathews (2002) has developed a theoretical framework called Linkage, Leverage and Learning (LLL) to analyze the phenomenon of the MNEs from Asia-Pacific - the "Dragon multinationals". The framework captures the idea that latecomers use their oversea investments and global linkages to Leverage cost, Lead and Learn about new sources of competitive gains. Differently from the OLI perspective, Mathews sees the first phase of MNEs formation as most likely to begin with asset-exploring purpose rather than asset-exploiting motives. He argues that linking with mature market MNCs, a latecomer firm may leverage knowledge, technology and market access with the result of entering in a learning process, which can be then exploited for further growth (Mathews, 2006). According to the LLL model, the degree of international success is therefore related to the extent to which links can be established and resources can be leveraged. The potential advantage is related to the accessibility to these resources in terms of their inimitability, transferability or substitutability. The benefits depend both on the ability of the firms to leverage external resources and on their 'absorptive capacity' that is their ability to identify, assimilate and exploit external knowledge (Cohen and Levinthal, 1990).

Overall, while the conventional theories of internationalisation such as the OLI Paradigm, IDP as well as LLL offer some insights into the changing trends in FDI, they provide an incomplete understanding of the strategic drivers characterising this new phenomenon.

2.1 OFDI FROM CHINA

In the context of MNCs from NICs, China represents one of the leading players ranked 5th among all economies in terms of OFDI flows (UNCTAD, 2011). While China's dominant position as a recipient of global FDI flows has been well documented, the oversea investment activities of Chinese companies have received considerably less attention. However, a recent wave of cross-border acquisitions by Chinese firms has brought increased interest to this topic. In this age of financial crisis and austerity, an increasing number of European luxury companies are seeking financial support and alliances with wealthy companies. The result is that Europe is experiencing a structural wave of Chinese MNCs acquisitions where annual inflows tripled from 2006 to 2009, and tripled again by 2011 to €10 billion for 2012 (Rhodium Group, 2012).

Rui and Yip (2008) suggests that Chinese firms strategically use cross-border acquisitions to achieve goals, such as acquiring strategic capabilities to offset their competitive disadvantages and leveraging their unique ownership advantages, while making use of institutional incentives and minimizing institutional constraints. Child and Rodriguez (2005) examines the patterns of, and motives for, internationalization by prominent market-seeking Chinese firms. Case studies of these firms indicate that they are seeking technological and brand assets to create a competitive position in international markets. While mainstream theory tends to assume that firms internationalize to exploit competitive advantages, Chinese firms are generally making such investments in order to address competitive disadvantages. Fortanier and Van Tulder (2008) compare the pattern of international expansion of large firms from China with those from developed countries. They find that Chinese firms have internationalised more rapidly and more recently and tend to present a more volatile trajectory of internationalization vis-à-vis those in developed countries.

2.2 CHINESE ACQUISITIONS IN THE MADE IN ITALY LUXURY SECTOR

The scenario between Italy and China is particularly interesting due to the peculiarity of the Italian economic system which shares some features with the Chinese one. These are namely the strong presence of Small and Medium-sized Enterprises (SMEs) that are specialized in traditional industries (Rabellotti and Sanfilippo, 2008; Amighini et al., 2010). A recent study (Pietrobelli et al., 2010) shows that Chinese firms often regard Italy as a particularly informative European market since the consumers' taste is often regarded as a very demanding and very sophisticated. Moreover, in mainland China, Italy's reputation for high quality and prestige products remains strong and the market for luxury goods has experienced remarkable growth (The Economist, 17/03/2012). According to Filippov and Saebi (2008), Chinese investments in Italy reflect the effort to enter competitive European markets and obtain access to superior technologies, know-how and capabilities. The high level of specialization in sectors such as the automotive, textile and clothing, machinery and home appliances represents a very appealing factor for China wishing to upgrade its production and technological capabilities and build its own global champions in these industries (Mariotti and Mutinelli, 2008).

According to a report conducted by Rhodium Group (2012), the first Chinese investment in Italy took place in 1986 when Air China opened a commercial office in Rome and until the end of the 1990s the number of investments registered was very negligible. However, since 2000 the number of Chinese acquistions in Italy has increased significantly as a confirmation of the importance of the strategic asset seeking motivation. Pietrobelli et al. (2010) affirm that what is happening today in Italy resembles the "*Marco Polo effect*" that happened in China centuries ago but in the opposite direction. At that time, Marco Polo was impressed by the level of civilization achieved in China and brought back to Italy some important scientific and technological discoveries. The same is happening today, since Chinese companies seem to be interested in gaining the knowledge and the expertise developed in Italy, in particular in design-intensive and in high-quality productions. For these reasons, Chinese MNEs are increasingly targeting the acquisition of technological skills, design capabilities and brands to acquire those local competences that are available in the Italian specialized manufacturing clusters (Pietrobelli et al., 2010) as illustrated in the Table 1 below.

Table 1: Main Acquisitions by Chinese firms in Italy by sector

Year	**Target**	**Acquirer**	**Sector**	**Stake %**
2001	Meneghetti	Haier	White goods	100
2004	Wilson	Wenzhou Hazan	Textile	90
2005	Benelli	Qianjiang Ltd	Motorbikes (luxury)	100
2006	Elios	Feidiao Electrics	White goods	NA
2007	HPM Europe Spa	Hunan Sunward Intelligent Machinery	Machinery	51
2007	Omas srl	Xynyu Hengdeli Holdings	Textile	90
2008	Cifa	Changsha Zoomlion	White goods	60
2008	Tacchini Group	Hembling International Holdings Limited	Fashion (luxury)	100
2009	Elba	Haier	White goods	20
2010	Volvo Italia	Zhejiang Geely Holding	Automotive	NA
2011	Sirton	Shanghai First Pharmaceuticals	Pharmaceutical	NA
2012	Ferretti Group	Shandong Heavy Industries-Weichai Group	Boats (luxury)	75
2012	De Tomaso	Hotyork Group	Automotive (luxury)	80
2012	Miss Sixty	Crescent Hyde Park	Fashion (luxury)	50
2012	Ferragamo	Peter Woo	Fashion (luxury)	8
Source: Data collected by the author				

Rather than building home-grown brands that would require a long time to become established Chinese firms seek to invest in Italian brands that possess a rich heritage but have fallen on hard times or gone out of fashion to consolidate their position in the global market. An emblematic example is the acquisition of Omas, a company specialized in the production of luxury fountain pens since 1925, which was acquired in 2007 by the group Xinyu Hengdeli. Other cases are the Hembly International Holdings, leading Asian clothing retailing group that acquired Sergio Tacchini, well-known but declined luxury clothing brand in 2007 and Trendy International, Hong Kong clothing distributor who recently bought a minority stake in Miss Sixty, a popular luxury clothing manufacturer for teens.

Overall, the widespread anxiety concerning China's international expansion calls for a better understanding and knowledge of the strategies of Chinese companies entering the Italian market to better inform what is becoming an increasingly relevant debate. Although this topic is becoming fashionable in international business studies, the empirical evidence on Chinese FDI in European countries is quite limited and mainly relates to the UK (Burghart and Rossi, 2009; Cross and Voss, 2008; Liu and Tian, 2008) and Germany (Schüller and Turner, 2005). This evidence is even scarcer if we consider Italy and to large extent the luxury sector. As such, there is a valuable opportunity to conduct further research.

3. METHODOLOGY

This paper presents the preliminary results of a single case study of a Chinese acquisition that was conducted to provide some in-depth insights over the influences and the motives driving these firms to invest into the luxury Made in Italy. The paper relies on one in-depth case study (Yin, 2008) that was purposefully chosen to illustrate some distinctive organizational challenges that were faced by both the target and the acquirer firms before, during and after the acquisition.

Benelli was selected as a suitable case study. The firm was acquired by the Chinese investor Qianjiang Ltd. (hereinafter referred as QJ) in 2005. Benelli operates in a niche luxury sector and enjoys a long history and tradition and can be considered as being representative of the luxury Made in Italy due to its design-intensive nature, the premium quality of its products and the extensive use it makes of advanced technology in its production. To enhance the rigour of the findings, the case study followed a very structured research protocol as illustrated in the Table 2 below.

Table 2: Case study research protocol

Data Source	**Main Focus**	
1 In-depth interview with the company Financial Manager	Overview of the target's market	Overview of the acquirer's market
	Brief history of the target	Brief history of the acquirer
	Target's main strategic assets	Acquirer's main strategic assets
		Acquirer's international expansion
	The acquisition	
	The post-acquisition	
	The integration phase	
6 In-depth interviews with key-informants	Discussion of the findings to increase their robustness	

Firstly, Benelli's CFO was interviewed to investigate some aspects of the acquisition that would not emerged with other data collection methods. The CFO has been working in the company for many years and played an extensive role before, during and after the acquisition. The interviewee also provided useful material such as company reports along with secondary data that were useful to corroborate the findings. Additionally, to overcome the limitations that conducting a single case study entails (Yin, 1984), five key informants possessing some relevant expertise in the field were also interviewed to further increase the robustness of the findings (Tellis, 1997).

4. THE CASE STUDY

The target. Benelli is one of the most important Italian manufacturers of luxury motorcycles. The company has been established in Pesaro in 1911 and is currently the oldest of all European motorcycle factories in operation. The company has been always family-run and has a very interesting history, having survived both WW1 and WW2. It did very well until the 1960s when it entered a profound crisis due to the arrival of Japanese manufacturers, which caused a crisis in the entire European motorcycle industry. In 1995 it was initially bought by the Indesit Group that attempted to relaunch it. Despite this effort, the need for sizeable investments and the enormous financial difficulties led the company into liquidation. Following an intense period of negotiations, in 2005 Benelli was acquired by QJ.

The acquirer. QJ is a large-scale state-owned group producing motorcycles, and one of the 520 state enterprises certified by the Chinese State Council, which focuses on the low price segment of the market and has several typical Chinese-style low-power motorcycles (MOFCOM, 2011). The company is "*dedicated to a combination of European design, Japanese quality and Chinese costs*" (Spigarelli et al., 2012). The QJ Group was established in 1971 as a chemical engineering machinery factory, has changed its line of production to motorcycles in May 1985 and has experienced low-cost expansion and doubled its economic growth within a short time. It has been listed on the Shenzhen Stock Exchange since 1999. Only twenty percent of its production is sold abroad in 110 countries. While the majority of its production tends to be low cost, the company targets the high-end segment of market in EU and USA by thus devoting more attention to technology, brand, quality and service. QJ has built up long term collaborations with R&D centres, leading institutes and world top experts by accumulating a great wealth of precious experience on products development. The Group has an exemplary quality management system (ISO9001, CE, GS, CSA and UL standards) and has received quality licenses from national import and export product testing bureaus. QJ over the years has been engaged in many partnerships in order to upgrade its products. Currently, QJ owns two domestic brands (Cozily and Qianjiang) and three European brands (the Italian Benelli, the Hungrian Keeway and a generic brand stemming from a partnership with AC, an Austrian company). With these three leading European brands, the company plans to build and expand its markets in Europe and North America, to accelerate technical innovations and to establish itself in a more competitive position in the international market (Spigarelli et al, 2012).

The acquisition. QJ approached Benelli for the first time in 2005. Benelli, which at the time was looking for an injection of capital, decided to sign an agreement that would help to overcome its financial constraints and yet, to benefit from QJ's main strengths, namely its high-efficiency plants and low production costs (CFO interview). On September 16th, 2005, a deal was reached and Benelli QJ was founded. QJ acquired Benelli S.r.l. for a total of EUR 59.7millions including the assumption of EUR 52.7millions of debt (Benelli financial statement, 2006). QJ decided to revitalize the company by implementing a very pragmatic industrial plan by keeping the localisation of the firm in Pesaro and by keeping the entire workforce previously working in the company. Only a few people from China have been expatriated to Pesaro, these are namely the sales director, the quality manager and the managing director. All the technicians, workers and engineers are Italian. An important choice made at the time by QJ was to nominate the previous CTO as the vice managing director. He was considered the "*historical heart and soul of the company*" (CFO interview) but he left the company in 2009, after repeated collisions with the new managing director. All the operations related to administration, production and R&D have been maintained in Pesaro.

As pointed out by the CFO and by several interviews, the strategic objective of the acquisition was to leverage the recognized brand, the heritage along with the knowledge of the luxury segment to penetrate a new high-premium segment for QJ by thus delivering high-quality production. *"Having become aware that with two brands born from nothing they cannot produce motorcycles, QJ decided to buy Benelli so to have the technology and design and a respected brand in Europe. Essentially, they bought the history and the know-how*" (Benelli's former CTO interview). Further, the QJ objective was also to use Benelli's know-how in China to increase the quality of its domestically manufactured products and to diversify its production to target a new segment. The rationale behind the acquisition was to acquire an innovative technology to more effectively counteract the fierce competition from the Japanese manufacturers in China (Benelli's former CTO interview).

The post-acquisition. The first initiative after the acquisition was to bring the whole production of the engines in-house, within Benelli, whereas before the engine was developed in-house and the production was outsourced. According to the Chinese management, the decision to outsource the engines had been a remarkable mistake that resulted in high production costs, quality defects and ultimately leading to some inefficiency in the engines' performance (CFO interview). Now Benelli is equipped with a production line that produces 70 engines per day. This has been coupled by a significant increase of the workforce that grew from 45 to 90 employees. To this purpose, QJ signed an agreement with a local professional school by introducing students' placements and apprenticeships. The existing suppliers were also all maintained. The technical department of Benelli QJ works closely with QJ technical department so to capitalise on their existing synergies. Benelli QJ technical department in Pesaro is in charge of the design of the product then the prototypes are sent to QJ technical department in China that is responsible jointly with the Italian division for its subsequent industrial development. Once the industrial development has been completed, the actual production takes place in Italy. The other important initiative implemented by QJ has been to significantly reduce both the production costs and the sales costs. Benelli QJ has started producing a number of secondary components in China. "*We started from the simplest types of plastics components, wirings and electrical controls mounted on the handlebars. A visible shift towards cost reduction, but without affecting the quality, because the parts that require more* *advanced processing are still produced in Pesaro*" (CFO, interview). As a result, Benelli QJ produces in China the gear-box, the throttle-body system and balancing-shaft. "*There are Italian technicians who are often in China so to support them in the production as well as in the quality control of the components*"- the CFO added. "*The head office often asks to borrow moulds, Italian technicians or our engineers. Their presence is often required in China and this is a clear sign that their objective is to learn some critical phases of the production process"* (CFO interview). As for reducing the sales costs, the Italian commercial network relies on official dealers. The international distribution network is based on joint subsidiaries with Benelli and Keeway products, both brands are sold through the same distribution network but differentiated by price and quality. Overall, Benelli QJ relies on a new method of work that capitalises on the existing synergies between the two companies by leveraging their mutual strengths in order to exploit their complementarities. Benelli's motorcycling tradition, the Italian cutting-edge technology in the production of the engine and its distinctive design capabilities combined with QJ's production efficiency have resulted in new valuable opportunities for Benelli QJ to develop and introduce new models to the market. Seven new models were manufactured in the three years following the acquisition.

The integration phase. After the acquisition, however some issues between QJ and Benelli emerged. In particular, cultural differences emerged in terms of staff behaviour and very different management styles. "*It is very difficult to understand the behaviour of a Chinese person. For a long period, we were not able to understand why they did not give us certain answers and we wondered if it was because they could not or they did not know. After some months, we understood that they were not interested in sharing some information with us"* (CFO interview). Issues related to different mind-sets, habits and also familiarity with different work environments in Italy and China became soon visible in the daily routines. Communication has been a key issue, especially in the technical area. As a result of language barriers and difficulties associated with different working practices, many important projects were delayed. During the interview, the CFO for instance explained that the Italian employees were puzzled by the Chinese staff falling asleep after lunch as they were in need of a nap. This would undermine their professional credibility. Similarly the Chinese managers did not see the problem of calling to work the Italian employees on Sundays. According to the CFO, these problems stemming from mutual cross-cultural misunderstanding have significantly hindered the company's potential. Another critical issue concerned the peculiarity of the Chinese management style characterised by a great focus on efficiency. In its attempt to reduce costs QJ had to mostly cut all those investments that were characterise by less tangible returns. This rationalisation strategy resulted in reduced investment in sales promotion, marketing and post-sales assistance without concomitantly improving the worldwide strength of the brand and the efficiency of the international distribution network. Additionally, issues emerged from the highly hierarchic approach of the Chinese management. "*Each decision should be discussed with the MD and this makes us stuck and the processes is very slow. When the MD is abroad and we have to deal with urgent situations we get stuck because we cannot move without any authorization. They do not delegate anything*"- commented the CFO.

Another issue emerged by which after a first "enthusiastic phase", human relations became somehow complicated. This was well explained by the CFO when discussing the reasons that led Mister Marconi (former CTO and then VP under QJ management) to leave Benelli in 2009. "*At first, the Chinese management mainly aimed to keep Marconi, they stated that he was the heart and soul of the firm but then the management wanted to be more and more involved in any proposal of change and Marconi, missing his autonomy and his discretional power, decided to leave the firm in 2009*". Yet, "*All the planning and control activities were mono directional*" commented the interviewee. Benelli QJ does not receive any information on the strategic development plans from the QJ group or any formal and periodical feedback on its results and performances. Yet, the companies' databases are not integrated since only QJ can access Benelli's information system. Overall, "*it seems that they consider us as a pawn controlled by a world industrial giant"* (CFO interview).

5. CONCLUSION

Despite the topic is gaining importance, research on the internationalization of Chinese MNEs is quite limited to studies that attempt to provide an overall overview of the trends with a limited focus on specific sectors and on the drivers of the acquisitions' choices (Pietrobelli et al., 2010; Amighini et al., 2010). Therefore, this research has been an attempt to provide some anecdotal evidence by highlighting the strategic drivers behind the acquisition and the main difficulties arisen during the integration process between the target and the acquirer.

According to Rui and Yip (2008), Chinese companies strategically use acquisitions to achieve specific goals, such as acquiring strategic capabilities to offset their competitive weaknesses and leveraging their unique ownership advantages, while making use of institutional incentives and minimizing domestic constraints. The findings confirm that the ongoing increase of acquisitions carried out by Chinese MNEs in the luxury Made in Italy is a signal of the strategic-asset seeking motivations where the intent is to absorb new knowledge and know-how from the target company. The analysis of the acquisition confirms that technology, design and the prestige of a long-established brand are the main drivers. In particular, the research shows that the acquirer seeks to strengthen its competitiveness on the international market by leveraging the design and technology behind the brand.

As far as the post-acquisition phase, the literature suggests that, in most cases, the acquirer follows a structural integration approach by replacing senior managers and erasing the target identity (Yamin and Forsgren, 2006). However, the findings highlight that this approach was not followed by QJ. On the contrary, QJ tried to keep the target's identity by retaining its executives, its workforce and its suppliers. This seems to be in line with the identification of strategic asset seeking as the main motivation of the Dragon multinationals (Pietrobelli et al, 2010).

The findings over the impact of the acquisition on the target are in line with Hofstede's cultural distance hypothesis (1980) that suggests that the difficulties, costs, and risks associated with cross-cultural contact increase with growing cultural differences between two firms. The research thus provides additional insights by highlighting how the two different management styles might cause significant misunderstandings that created a rift between management and employees, impeding or delaying the strategy implementation. The findings thus confirm that acquisitions are difficult to implement because they require a "double layered acculturation" (Barkema et al., 1996), whereby not only corporate cultures, but also national cultures have to be aligned. Different values, goals and beliefs concerning what constitute appropriate organizational and daily practices may lead to conflicts and limit the potential for trust to emerge between the parties.

The findings also highlight how the success of an acquisition is strictly related to the management of the post-acquisition phase. As today's business decisions and choices are increasingly influenced by the diverse cultural backgrounds and by the perspectives of various corporate stakeholders, it becomes an imperative for managers to acquire some multicultural understanding. It would be therefore advisable to develop an education program both for the executives and for the employees. Yet, seminars and cultural initiatives could be established to enable a fuller multicultural appreciation of the mutual differences.

The limited number of Chinese acquisitions in Italy in the luxury sector prevents the conduction of a more generalizable econometric assessment. A case study approach has been therefore deemed as an appropriate methodological choice. Even if this approach can provide in-depth insights, the issue of generalizability looms larger here than with other approaches. The research focused only on a single case study, conducting multiple studies within different sectors of the Made in Italy luxury industry would be surely desirable. Moreover, despite the case study relied on multiple sources of evidence, it heavily relied on the view provided by the CFO, who is Italian. This has inevitably led to some bias in the findings and hearing the view from the Chinese counterpart would have provided a more faithful representation of the acquisition.

Nonetheless, due to the increasing number of Chinese acquisitions in Italy and their important implications for the luxury industry, there is the hope that the study may spark a wider interest over the issue and stimulate further research to generate a cumulative body of knowledge on the topic. This scenario represents a great learning opportunity for both the Italian and the Chinese firms and it is becoming crucial to gain a fuller appreciation of how this phenomenon can be turned into a mutually beneficial opportunity. Therefore, additional studies may help to investigate further problems arising in the integration process and thus suggest corrective actions that can be implemented to ease the success of the acquisitions.

Due to the increasing intensification of Chinese acquisitions activities and of the related fears and expectations regarding Chinese expansion into the luxury Made in Italy sector a fuller understanding of the phenomenon is not only desirable but also indeed necessary. This is critically important given the degree of anxiety that stems from the sensitivity of this novel topic. The provision of concrete research results can assist governments in supporting the sector with responding to this phenomenon by adjusting their policies so that local economies are able to capitalise on the advantages to be derived while minimising the negative impacts.

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Age Diversity, Expertise Diversity, and Collective Decision in Indonesian Family Businesses

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Abstract

Nowadays, Family business becomes extremely vital to the economic well-being all over the world. The understanding of the complexity and dynamics of a family business is increasingly important. Given, the special relational attachments, decision making in Family business is more complex than in other forms of organization. This paper explored the main effect of age diversity and the moderating effect of expertise diversity on decision quality and efficiency. Interestingly and paradoxically, the results indicated that, age diversity is positively associated with decision quality, while it is negatively associated with decision efficiency. Furthermore, expertise diversity did not generate direct main impact on decision, while its moderation effect has not been significant with collected thirty decision-making teams in Indonesian family businesses. Such results implicate that in family business in some culture, professional impacts may be in questionable function and that the long-term, trait-based composition of human group may surpress over the professional factors.

Keywords: Collective decision-making, Family business, Age diversity, Expertise diversity.

Family business is important to the economic in all over the world. Once there was one study estimated that family firms today constitute over 95 percent of all business worldwide (Westhead and Cowling, 1999). Poza (2010) supported this by mentioning that family businesses are of a great portion and extremely important to the economic well-being of the United States and the other free economies of the world.

Research nowadays prove that family business are created, survive and prosper due to the collective entrepreneurial efforts of controlling, resource collection, or decision making done by family members such as spouse that need to simultaneously build and maintain family and business (Dyer and Handler, 1994; Fitzgerald and Muske, 2002), or top management teams with kinship relations (Kellermanns and Eddleston, 2006; Ling and Kellermanns, 2010). Among these activities, collective decision-making constitutes a vital part of entrepreneurship in family business (Chiristman, Chua & Charma, 2005).

Decision making in family business is more complex than in other forms of organization. Decision making does not mean solving the problem, but trying to reduce uncertainties and part of problem solution. Unlike in other business, decision makers in family business need to see and consider both of the business and family relation perspectives, which can lead to tension or dilemmatic situations. The perspective between family businesses is totally different thing with family relation. One potential area of difficulty, therefore, is that personal relationships are unrelievedly important in a family firm and those involved could not stand back and look at business issues separately from family issues (Cadbury, 2000).

Furthermore, decision making situations would become even more difficult if there is intra-group heterogeneity for decision makers (Bantel & Jackson, 1989; Carpenter, 2002). Rae (2006) says that collective units of analysis become important in explaining entrepreneurial and decision-making practices within family businesses. However, it is hard to transfer information, practices, experiences, or even the whole business, from one generation to next generation. Some research proved that approximately 30% transfer to the second generation, while only 10-15% passed from the second generation to the third generation (Poza, 2007; Ward, 1987). Poza found only 4% manage to stay in the same family in the fourth generation. According to Shepherd and Zacharakis (2000) and Ward (1987) one of the main reasons for failed successions is a lack of effective decision-making. Better understanding of their own decision-making abilities and understand the barriers that they face in decision will improve the decision making quality and efficiency.

Given such importance, few studies have focused on collective decision making among or across the first, third, even more generations. How age and expertise diversity of decision makers in family business jointly affect collective decision making has not been examined in systematic manner. Aronoff and Astrachan (1996) discussed a single decision-maker in the majority of firms they studied, but found a large number of firms searching for consensus and some firms using a democratic voting process. Feltham, Feltham and Barnett (2005) discussed the situation of a dominant single key decision-maker. Nonetheless, research in general decision-making process has shown that there are generational gap between decision makers in different age and expertise. For example, elderly people may differ from young adults in their decision making when faced with risk as a result of external factors (Dror et al., 1998). Meanwhile, education is the additional demographic factor that may influence decision-making behavior directly or indirectly (Greene, 2001). However, expertise diversity (e.g., education) is less and more difficult to be observed because it is in the deeper level of individual.

In sum, the present paper discussed and reported the empirical results to respond to the following research questions: 1. Is there any significance affect of age diversity among family members in decision quality and efficiency? 2. What is the moderating effect of influence of Education and Age Diversity in Decision quality and efficiency?

Developing Soft Skills of Leadership: A review of hotel management in Asia

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Abstract

With decades of booming development, tourism has arguably become the largest industry in the world. Along with such rapid development, the hotel sector has also experienced a period of enormous economic development within this period stimulating increased patronage significantly. Consequently, the demand for talent professional in management roles, especially among managers has increased significantly. This paper reviews the soft skills that are identified as essential for managers in international hotels with its focus on Asia. The hotel industry invests heavily in both formal and informal learning and development – with the former being more easily measured and the latter being less quantifiable being on-the-job learning. 'Soft skills', also referred to as people or interpersonal skills, are perceived as both essential skills to employment in managerial roles hotel management and enhanced through more formal management development interventions.

Introduction

With decades of booming development, tourism has arguably become the largest industry in the world. According to the World Tourism Organization (UNWTO, 2007), international tourism receipts totalled US$733 billion and international tourist arrivals totalled 846 million in 2006. During the period of 1950-2006, international tourist arrivals gained an average of 6.5% annual growth (UNWTO 2007).

Along with such rapid development, the hotel sector has also seen a period of enormous economic development and increased patronage. Consequently, the demand for professional management talent, especially among middle managers has increased significantly. This demand has seen the need to recognise the “frontline” management and interpersonal skill development of all staff, particularly middle managers as leaders. Training, as an essential function of HRD (Sezer 2009), performs an essential role vital role to sustain these vital skills among middle managers and develop their career progression in order to cope with the industry demand. Kotey & Sheridan (2004) suggest that the training is a HRM application that can be used to increase the power of competition in businesses: it not only teaches the employees knowledge about their working system, but also how to stimulate added productivity through sound management skills (Sezer 2009).

It is widely accepted that leadership skills play a significant role in organisational performance and success. It is known that managers who are concerned with the development of their managerial and leadership skills are perceived by staff as being more effective, and are therefore able to encourage increased productivity and satisfaction when compared with managers who less engaged in the development process (Muenjohn, 2009). As a result in the US alone, companies spent more than $US1B (one billion US dollars) on management learning and development in 2007 (Anderson and Brennan, 2008). Eighty five per cent of US companies offered leadership development programs (Gavin, 2003).

The majority of leadership learning theories was developed in the 'West'. However, some of these development strategies have been less successful in varying cultural settings and many researchers claim that culture plays a distinct role in acceptance of, or resistance to, learning and development interventions (e.g., Freeman et al 2009, Hofstede, 1995). Nevertheless, hospitality-based multinationals that originated in the Asian region have flourished (for example, the Mandarin Oriental Group owned by Jardines Hong Kong, and the Shangri-la group also from Hong Kong). Whist there is a significant body of literature that analyses Asian leadership preferences and another that analyses global diversity and cross-cultural development (Muenjohn, Armstrong and Francis, 2010; Muenjohn, 2012; Arham, Muenjohn and Boucher, 2012; Freeman 2009, Ramburuth, & Welch 2005), a limited understanding of Asian leadership development practices and theories persists. We know virtually nothing about the potential global application Asian leadership development practices and theories. We purport that there is a dearth of research literature in this area.

In order to obtain a thorough understanding of leadership practices in Asia, this paper targeted international hotels operating Asian. More specifically, the current paper aims to review skills and capabilities that are identified and fostered as essential for managers in international hotels in Asia. In this paper the focus was placed on the efforts made by five star hotels on the development of soft skills "soft skills" (interpersonal competence) among the managers. This review revealed that management and leaders within this industry sector were provided with a highly developed appreciation and acute understanding of soft skills in terms of knowledge and practice. Our research shows that this industry sector places considerable emphasis on developing interpersonal skills for three key purposes - managing staff, and liaising with the clientele and inducing return business. This paper will contribute to the body of knowledge in the field of the leadership and human resource management across cultures. In addition to the theoretical contribution, this paper also has its practical significances as recommendations in terms of leadership and training practices in Asian hotels.

Hotels Management in Asia

Over the last decade, the hospitality industry in Asia has grown substantially due to the expansion of the economy and increase in purchasing powers of local people leading to growth in traveling demand (World Tourism Organization 2013). The World Tourism Organsiation (2013, p. 4) reported that the Asia and the Pacific region, among all the areas recorded, posted a record as the fastest growth region given a '7% increase in international arrivals, or 16 million more." At the same times, the six countries China, Singapore, Malaysia, Thailand, Hong Kong and Vietnam are among the list of the world's top tourism destinations (World Tourism Organization 2013). For instance, China and Malaysia respectively rank the third and ninth in 2011 according to the World Tourism Organization report (2013). Similarly, the tourism industry is one of the main sources of income to Hong Kong Chan and Coleman (2004). The increase in both inbound and outbound tourism has given a great opportunity for international hotel groups to expand their business in this region (Jogaratnam and Tse, 2004). Siu (1998) investigated the managerial competencies that middle managers needed to obtain based on research involving Hong Kong hotel senior managers. The research results identified eleven managerial competencies including:

- *Leadership:* influences others to follow, even when asking for greater than normal efforts
- *Communication:* gets his or her ideas across, and gets the job done as identified
- *Team building:* Involves others and builds teams in which others feel valued and which have goals
- *Team membership:* working well in a team, shares information and seeks the ideas of others
- *Results orientation:* continuously sets himself or herself, and those who work for him or her, targets for better performance, and shows concern for getting things done

- *Personal drive:* Tries to improve himself or herself, and actively seeks new challenges.
- *Planning:* Sets priorities and schedules their own work and the work of others efficiently
- *Efficiency:* always seeks faster ways of doing things with fewer resources
- *Commercial concern:* looks for profitable business opportunities for the hotel, and seeks ways to improve the financial position of the organization
- *Decision making:* makes decisions based on his or her level of responsibility, and does not refer these to higher levels of management when not appropriate
- *Customer concern:* Identifies customer needs and ensures that customers receive the service required

Whilst interpersonal skills are seen as crucially important (Sui 1998, ILO, 2008, NCVER 2011) 'definitive labels and definitions' for soft skills for success in fields of work 'remain elusive: They have been called social or people skills, social competencies, soft skills, social self-efficacy, and social intelligence' (National Research Council 2011, p. 39). However we would argue that Sui (1998) added definition to the term interpersonal skills with excellent research on the managerial competencies that middle managers require in the hotel sector based ion research with the senior hotel managers in Hong Kong.

Of course perceptions among managers vary on this topic. For example senior managers of different functional divisions of the sample hotels ranked the most critical skills to climb the career ladders in their areas differently. For instance, the senior manager of accounts departments and human resource ranked communication first on the list due to the importance placed on internal communications enhancing the division's performance. Alternatively senior managers of the engineering departments emphasised the top of their list as the competency of being able to plan ahead (Siu, 1998). Hsu and Gregory (1995) studied the competencies sought for hotel managers being recruited at the entry level. Their study shows that there are 11 critical competencies that entry-level that required development to reach the general manager position. Among them, those competencies under the classification of "soft skills" held high positions on the list.

HRD Practices in Asian Hotels

As previously stated, Western human resource development models and practices have not always transferred successful to Asia-Pacific countries. One reason for the failure has been a lack of understanding of the impact of cultural distance. Bochner (1986) conceptualises culture as a process rather than a static condition, wherein learning to be effective is like learning a new game in which learners seek to integrate in a hybrid culture without a potentially threatening loss of cultural identity. Bennett (1993),however, warns that the potential loss of cultural identity threatens learners and that the idea that we understand phenomena in a range of culturally-weighted ways is one of the most threatening ideas that many of us ever encounter. Thus we know that on-the-job culture-related learning can be confusing and stressful as well as an experience that is potentially costly to organisations through lost knowledge capital, delayed career progression and attrition (Ward et al. 2001; Debowski, 2003; Blickem & Shackleford, 2008).

Training, is an essential function of human resource development (HRD) (Aycan, Al-Hamadi, Davis, & Budhwar, 2007, Au, Altman, & Roussel, 2008 Sezer 2009 Delahaye 2011), and performs an essential role to sustain vital skills in terms of interpersonal skills among managers and develop their career progression in order to cope with the industry demand.

Weerakit’s (2007) study on leadership of hotel managers in Thailand shows that the higher the rank of the hotels (star rate) and the larger the size of the hotel (number of employees) perceived competency in leadership more essential. From this study, team building and ethics, managing stakeholders, leadership and communication skills were rated as the most important competencies necessary for future success. Furthermore, while general managers in family owned hotels decided not to invest in training because they feel that they do not have an immediate financial return from training. The international hotels seem to be initiative in developing training program. Two of these high-performing organizations—Choice Hotels and Marriott International—developed comprehensive, chain-wide leadership-development programs. Choice Hotels International assessed the core competencies needed by its future leaders and created an integrated executive-training and development system. Likewise, Marriott International used leadership competencies to help senior managers in selecting, developing, and coaching future leaders (Weeakit, 2007).

Another phenomenon in international hotels in Asia is the roles of expatriates. Ruddy (1990) investigates the hotel management development in South East Asia country and commented that in the hotel industry worldwide, employees start at the bottom of the management career ladder can work their way up to the top-level general manager position. On the contrary, the career ladders for most of local Asia employees stop short of the executive office. According to Ruddy (1990), the majority of South East Asia's large international hotels are managed by expatriate foreign managers coming either from the United States or Europe.

According to Feng and Pearson (1999), managers who are expatriates require additional competencies. Cross-cultural training is a major part of expatriate managers in a different unfamiliar culture context. Therefore such training should basically include adjustment and adaptation skills to new environment, inter-personal relation skills, host country culture and language, cultural stress management, host country political system, and home country culture.

Tuleja and Roberts (2011) focus on analysing a management communication training program used by one large US international hotel company to train newly promoted supervisors and managers in Hong Kong and mainland China. The content of the training material address the content addressed communication issues, such as understanding diversity, developing effective listening skills, giving feedback, understanding cross-cultural communication, using effective interviewing techniques, and managing the problem-solving process. To ensure the accuracy of the cultural context, each hotel property hired its own trainers from the region, who adapted the materials accordingly. Key communication competencies were explicitly stated throughout the training materials and reinforced through experiential exercises including discussions, simulations, and role-play.

Tuleja and Robert's (2011) research shows that although the employees believed professional communication training was important, more was required to improve the actual training program, assisting and enabling the learner's capacity to transfer the training back to the workplace, and then engage upper-level managers with more deliberate mentoring of their subordinates.

The study that investigated HRM in hotels in Taiwan conducted by Yang (2004) found that knowledge and skill could be learnt by orientation and on-the-job training, but that positive values and work ethics needed to be obtained in school education. Based on Yang (2004) research, most hotels have a training plan; however not all are clear about the meaning of training needs, goals, or objectives. Coaching and training must be linked together to maximise the function of human resource management. Training can teach employees the skills necessary to perform the tasks, while coaching can enhance an employee's motivation for individual development and improved job performance. Integrating training and coaching will ultimately increase the effectiveness of overall career development in the organisation (Yang 2004).

E-learning has been increasingly used for soft skills training in hospitality industry especially in the hotel segment (Swanson, 2000; Weber et al., 2009). Kim et. al. (2011) investigates the perceived importance of soft skills for hotel employees working at various upscale international chain hotels in South Korea and the use of E-learning for training soft skills in those hotels. The research identifies differences in perceived importance among different generations of employees. Four of the soft skills (i.e. responsibility, self-esteem, sociability, and working with diverse groups) were perceived to be more important by younger employees (i.e. Generations X and Y).

What are Soft Skills?

'Soft' skills embrace, intrapersonal, interpersonal, and behavioural skills or "people skills" according to Crossman (2008); Balaji & Somashekar (2009) and Laker & Powell 2011, Manpower Group 2011). Soft skills signify teamwork (collegiality and collaboration), the communication of ideas, information and organisational goals, the collection and analysis of data, critical thinking (problem solving), patience, flexibility and open-mindedness, self-management, and cultural understanding, to identify some examples (Warhurst, Grugulis, & Keep 2004; Crossman 2008; Balaji & Somashekar 2009; Laker & Powell 2011 and Manpower 2011). Soft skills are too frequently underrated according to many commentators (Bolton 2004; Warhurst, Grugulis, & Keep 2004; Westwood 2004 in Warhurst, Grugulis, & Keep 2004; Balaji & Somashekar 2009) The International Labour Organisation (ILO) viewed soft skills as extremely important to productivity:

> *New sets of skills are required, from technical (hard) skills to people management (soft) skills. Skills in relationship management, inter-organizational teamwork and joint problem solving may all be required. Business management skills are vitally important for*

bringing together the skills of workers to achieve enterprise efficiency. (ILO 2008, p. 65)

In a study conducted by Manpower Group (2011), forty thousand employers in 39 countries and territories were surveyed in 2010) with the result being that 'the overwhelming majority (89 percent) of companies cited a lack of ….poor soft skills among available candidates as a bar to employability' (Manpower 2011, p 2).

According to the classification of Rainsbury et al (2002) and Tovey Uren and Sheldon (2010), hard skills are associated with the technical aspects of performing a job. These skills usually require the acquisition of knowledge, are primarily cognitive in nature and are influenced by an individual's intelligence quotient source. In contrast, soft skills are defined as the interpersonal, human, people or behavioral skills needed to apply technical skills and knowledge in the workplace (Rainsbury et al, 2002; Kantrowitz, 2005). Workplace skills such as collaboration, critical thinking and agility (soft skills) are critical to generate productivity and innovation' (Manpower 2011, p. 2).

The identification of competencies needed by hospitality managers has been investigated with greater focus since the 1980s (Tas 1988). In all of the competency research related to hospitality management, essential competencies include skills that can be classified as soft skills, yet a comprehensive list of these soft skills has not been identified (Weber, et al. 2009). Much of the previous research in interactive services, such as hospitality, has concentrated on the importance of a range of "soft" skills. For example, Burn (1997, p.240) notes how "soft" skills are much more important than "hard", technical skills in the provision of hospitality: "emotional demands are made of employees to constantly be in a positive, joyful and even playful mood". Burns in common with many other authors tends to understand such "soft" skills as being primarily concerned with attitudinal and emotional aspects. Consequently, much of the discussion surrounding "soft" skills has tended to concentrate on aspects such as social and interpersonal skills, which are largely concerned with ensuring employees are responsive, courteous and understanding with customers, or in simple terms can demonstrate emotional labour (Hochschild, 1983). However, this description of "soft" skills is partial.

Other studies have coined the term "aesthetic labour" pointing to the increasing importance of the way in which employees are expected to embody the product in industries such as retail and hospitality (Weerakit, 2007). As part of this process of embodiment, employees were now expected to not only demonstrate "soft" skills with regard to their attitude, but also the ability to "look good" or "sound right," or in short, to draw on their "aesthetic skills" (Weerakit, 2007). This concept is aligned with the concept of charismatic leader. Charismatic leaders combine each member's personal goals with the organizational mission (Weerakit 2007). Subordinates identify at a personal level with the purposes and goals of the collective as a whole and therefore feel more commitment and cohesiveness, which improves subsequent performance. Charismatic leaders excite and transform previously dispirited followers into active followers by heightening motivation and instilling a sense of purpose (Weerakit 2007).

Why soft skills are needed in the hotel industry?

For professional success, it is important to acknowledge the skills set required by the position. Thus, it becomes important to understand the competencies required in the hospitality industry. In general, Sandwith (1993) provided a competency model which classified competencies in five groups: (1) conceptual-creative; (2) leadership; (3) interpersonal; (4) administrative; and (5) technical. In this list, leadership and interpersonal competencies represented “soft skills.”

Particularly in hospitality management area, Tas (1988), Okelyl et al. (1994) Tas et al (1996) and Kay and Russette (2000) suggest a list of competencies that are essential for hotel management. The main competencies from the lists proposed in these studies stress of soft skills. For instance, Tas (1988) reported a list of 36 competencies required for management trainees. Six competencies in the list were soft skills. Weber et al. (2009) suggest “there is a need to continue the investigation into specific soft skills that are vital to hospitality management as well as the method by which these skills may be developed and utilized”.

The research by summarising three most important studies by Tas (1988), Okelyl et al. (1994) and Tas et al (1996) identifies that personal and leadership competencies are essential for managerial success and be the highest-rated management skills generally recognized by the hospitality. Kay and Rusette (2000) investigate the hospitality-management essential competencies, and the extent to which these competencies are used by entry and middle managers. This research looks into functional-specific essential competencies of middle managers and compares them to those of entry-level managers. The research findings of Kay and Rusette (2000) suggested that in most cases leadership and interpersonal-related competencies were identified as being essential to more than one functional area and management level. Furthermore, Kay and Rusette’s (2000) study revealed that the customer-centered leadership skills were judged as essential competencies. In a study to assess skills needed by tourism managers, respondents stated that the most important managerial skills are leadership followed by interpersonal communications and employee relationships (Breiter and Clements, 1996).

By adapting the findings from the studies by Byatzis (1992) and Stevens and Campion (1994) on specific management competencies, Weber et al. (2009) provided a framework for soft skill dimensions to include of 20 competencies which belong to four groups (1) leadership/people/relationship skills; (2) communication skills which are associated with listening, presenting, verbalizing and non-verbal communications; (3) Management/ organization skills which include articulating goal, organizing people and resources, monitoring progress, and resolving problems; and (4) Cognitive skills and knowledge which relate to creative thinking, making sound decisions and solving problems within the workplace.

Development of Soft Skills

Different perspectives have been given in terms of the role of formal education. On one hand, the literature reveals that academic programs fall short in providing students with leadership and interpersonal skills and master’s degree graduates reported that over half their leadership and interpersonal skills were gained outside their formal graduate-level hospitality management courses (Kay and Russette 2000). Harkison (2004, 2011) commented that it is common for managers to believe practical experience is more valuable than a degree. Formal education cannot replace the myriad of skills and attitudes developed in a work place, and remaining calm under pressure Ren, Zhu, & Warner (2011).

On the other hand, Chan and Coleman (2004) argue that education has become more important when compared with the past, especially in the tourism industry because the change in economic and social factors requires different and more academic qualifications in contemporary times. In the past most entry positions in the hospitality industry in Hong Kong placed emphasis on the employee's job-related experience rather than their academic qualifications. However, due to the global economy, labour resources are required to shift to higher-value added activities where knowledge, advanced technology and service provide a competitive edge (Nankervis, Cooke, Chatterjee, and Warner, 2012).

A survey undertaken by the Association of Retailers & Tourism Services in 1998 focusing on training needs found that most of the respondents agreed that training was essential for front line and middle management level staff (cited by Chan and Coleman, 2004). Baum (2002) asserted that employers placed value on generic skills, such as the willingness to learn and the ability to be flexible and adaptive. At the same time, initiative is also a valued skill and one found to be lacking in the industry (Nankervis, Cooke, Chatterjee, and Warner, 2012).

Ladkin's (2000) study of the careers of hotel managers specifically in Australia confirms the widely held perception that food and beverage experience remains the single dominant career characteristic of successful general managers. Furthermore, the established career channels to advance to the position of general manager involve food and beverage experience, training at assistant manager or deputy general manager level prior to general management, underscored by an increasing recognition of vocational education (Ladkin 2000). Also, the research by Ladkin's (2000) suggested that individuals move around both within and between companies and experience better career advancement with a readiness to be geographically mobile.

Baum (2002) suggested that productivity was significantly enhanced in organisations that focused on long-term investment in integrated hospitality skills development at all levels. Though, notably no specification on "soft skills" is addressed in Baum's (2002) research. Cross-training opportunities in the short term, fosters flexibility and heighted efficiencies among staff and in the long term, aid the development of professional managers who can cope with the multiple functions in hotels (Baum 2002). Some hotels are developing more innovative approaches to training such as participating in joint-training programs with other hotels; developing long-term relationships with internship students; increasing employee empowerment and using the Balanced Scorecard (Nair 2004; Niven 2006) in performance management.

Conclusion

Soft skills among leaders are believed to be one of the most essential requirements to become effective managers in the hotel sector in Asia. Whilst it is partially developed on the job with an informal development approach, the skills are also frequently developed through more formal management development interventions and programs. In the hospitality sector, 'leadership' is predominantly about soft, or interpersonal, skill capacity building. Asian hotels invest heavily in both formal and informal leadership learning and development – with the former being more easily measured and the latter being harder quantify. However, informal development and training on-the-job learning are emphasised as being of crucial importance and are highly valued.

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Can Idiosyncratic Volatility Price the Return? Evidence from Greater China

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Abstract

Classical financial theory proposes only the systematic volatility is priced in asset and the idiosyncratic volatility can be diversified away in investment. However, prior literatures make no consistent conclusion to the relation between idiosyncratic volatility and the excess return. This study follows the method of Bali et al. (2005) and further adopts GARCH model, which capture the time-varying property in idiosyncratic risk, to reexamine the relation. Using data from Taiwan, China, and Hong Kong, the empirical evidences show no matter how the idiosyncratic risk was evaluated, the relation is insignificant between the excess return and the lagged idiosyncratic risk across those markets in recent years. This study argues the value-weighted portfolio should be used for investigating the productiveness of idiosyncratic volatility, the liquidity issue does not stand, and the market efficiency also plays critically in the investigation.

Keywords: Idiosyncratic volatility, excess return

1. Introduction

The mean-variance of Markowitz (1952) proposes investors can optimize their portfolios through diversification to lower their risks. In investments, the risk can be decomposed into systematic and non-systematic risks. The former is generally influenced by politic, economic condition or social environment which cannot be diversified away. Contrarily, the non-systematic risk (idiosyncratic risk) is the specific risk a firm encountered and can be mitigated through diversifying. Based on it, Treynor (1961, 1962), Sharpe (1964), Linter (1965a, b) and Moss (1966) in advance raise the Capital Asset Pricing Model (CAPM) and propose a linear relationship between the required return and the market risk (systematic risk). The CAPM postulates investors are capable of diversifying their portfolios and then receive risk premium through bearing systematic risk. In other words, traditional financial theory suggests that investors should only respect systematic risk in investments because the idiosyncratic risk can normally be diversified.

However, some studies show the investors cannot diversify their portfolios empirically. Campbell, Lettau, Malkiel, and Xu (2001) propose a diversified portfolio should contain about fifty stocks when stocks are selected randomly. In practice, it cannot be achieved easily by individuals. Goetzmann and Kumar (2004) find that less than 10% of households carry more than 10 stocks. Those appearances show the investors cannot diversify their portfolios and raises the importance of idiosyncratic risk in investments. Further, Malkiel and Xu (2003) and Wei and Zhang (2004) all find the ratio of idiosyncratic risk to total risk increases over time. Indicating the idiosyncratic risk should no longer be ignored.

Levy (1978), Merton (1987), and Malkiel and Xu (2002) point out the pricing of financial assets will be affected by idiosyncratic risk if investors cannot hold sufficient assets to diversify their portfolio. Merton (1987) also argues that investors should consider the total risk rather than the systematic risk if they cannot hold diversified portfolios. However, the most interesting question beyond those studies is the relation between the idiosyncratic risk and the expected return.

Goyal and Santa-Clara (2002) evidence the positive relation, which consistent with the traditional financial theory on the trade-off of risk and return issue. Fu (2009) also provides support to the positive relation while considering the time-varying property of idiosyncratic risk. However, Bali et al. (2005) find no significant relation after controlling the liquidity. Surprisingly, Ang, Hodrick, Xing, and Zhang (2006, 2009; AHXZ) propose a negative relation by using either U.S. or other 23 country data. The relation between idiosyncratic and expected returns becomes a puzzle and consequently motives this study.

Bali et al. (2005) show the findings of Goyal and Santa-Clara (2002) are not robust across different stock portfolios and sample periods. Goyal and Santa-Clara (2002) propose a positive relation between the equal-weighted average stock volatility and the value-weighted portfolio returns on the NYSE/AMEX/Nasdaq stocks. However, the positive relation disappears when either the value-weighted/median measures of average stock risk are used or the sample period is extended from 1963:08-1999:12 to 1963.08-2001:12. The study of Bali et al. (2005) indicates the measures of stock risk, the way to construct portfolios, and the sample periods playing important roles in identifying the explanation power of idiosyncratic risk on expected return. This study follows Bali et al. (2005) to extend the sample period to 1999:02-2010:02 and different portfolios to reexamine the relation. Moreover, we use both the GARCH model, which takes the time varying property into consideration, as well as the OLS model to measure the idiosyncratic risk. We evidence there is no significant relation between the idiosyncratic risk and the lagged stock returns by using pool regression. The insignificant relation is robust either in different markets or across different idiosyncratic risk ranked portfolios. Our empirical result, which is at odds with the findings of Fu (2009) and Ang et al. (2006; 2009), confirms, updates, and provides support to Bali et al. (2005) by using GARCH measured idiosyncratic risk.

This paper is organized as follows. In section 2, we introduce the literatures. Section 3 reports the methodology. The data and empirical results are presented in section 4. Section 5 concludes the paper.

2. Literatures review

The over weighting on the systematic risk and overlooking the idiosyncratic risk in investments by traditional financial theory have now been discussed widely. Hamao, Mei, and Xu (2002) argue that traditional financial theory proposes only systematic risk can be used in pricing, consequently leading to studies ignore the importance of idiosyncratic risk. Xu and Malkiel (2003) also point that traditional financial theory believes the idiosyncratic risk can be eliminated by diversification and in turn driving the regardless of the idiosyncratic risk in investments. In fact, even most of investors sense the existing of idiosyncratic risk they do not pay attention to it due to the sayings of traditional financial theory or the setting of theoretical financial models. Goetzmann and Kumar (2004) find that most of investors hold too less financial assets to diversify their portfolio, leading the idiosyncratic risk remains. Naturally, the idiosyncratic risk becomes an indispensable risk factor in explaining expected return.

The other reason for the use of idiosyncratic risk as the explaining factor to stock return is the increases of idiosyncratic risk in return volatility. Compbell, Lettau, Malkiel and Xu (2001) decompose the stock return into market-wide return, industry-specific residual and firm-specific residual. They find a noticeable increase in firm-level volatility to market volatility over time. Their finding recalls the arguments that idiosyncratic volatility matters in asset pricing. For example, both Tinic and West (1986) and Malkiel and Xu (1997) find portfolio that associates with higher idiosyncratic volatility earns higher abnormal return. Consequently, Goyal and Santa-Clara (2003) explore a positive relation between the idiosyncratic volatility and the value-weighted portfolio. In addition, Spiegel and Wang (2005) find the idiosyncratic risk and firms' return move upward in the same direction. These studies all indicate a positive relation between the ignored idiosyncratic volatility and the stock return. Telling the traditional asset pricing model does not work perfectly in financial market.

However, Bali et al. (2005) provide a new evidence to the relation after extending the investigation period of Goyal and Santa-Clara (2003). They find the relation is insignificant and evidence the positive relation found by Goyal and Santa-Clara (2003) is caused by the trading behavior and the liquidity premium in NASDAQ. While excluding the small, less liquid, low priced samples, the positive relation turns to be insignificant no matter in the short- or long-run. A similar finding is also provided by Bali and Cakici (2008). Whether the investors require more return while bearing more risk again turn to a critical issue.

Interestingly, Ang, Hodrick, Xing and Zhang (2006, 2009) evidence a negative relation between the idiosyncratic risk and the expected return. Ang et al. (2006) find the firms with lower idiosyncratic volatility earn more abnormal return than that with higher idiosyncratic volatility. Furthermore, they argue the firm size, book-to-market ratio, momentum, and liquidity cannot explain why firms with higher idiosyncratic risk have higher abnormal return. After that, Ang et al. (2009) use samples from 23 developed countries and find firms with lower idiosyncratic risk earn higher abnormal return while controlling the firm size, book-to-market ratio, momentum effects. That is, in most of developed markets that are recognized as more mature, the idiosyncratic volatility associates negatively with the expected return. Even so, Fu (2009) argues the findings of Ang et al. (2006, 2009) is caused by the return reverse of small stocks. Huang et al. (2007) also propose that specific finding is caused by the reverse of monthly stock return. Even the relation is argumentative, worth noting that, the empirical results are critically affected by the methodology.

The idiosyncratic volatility can be estimated by several distinct method. Xu and Malkiel (2003) and Goyal and Santa-Clara (2003) use the three factors model of Fama French (1993) to estimate the idiosyncratic volatility presented by the standard deviation of the residuals. Whereas, Bali et al. (2005) use the market model. In addition, Campbell et al. (2001) use the indirect decomposition method, Fu (2009) use the EGARCH model, and Lin et al. (2010) use the GARCH model to calculate the idiosyncratic volatility. That might be one of the reasons why the empirical results differ. Moreover, the regression analyses are also different in design. Goyal and Santa-Clara (2003) use the equal-weighted portfolio to regress the value-weighted idiosyncratic volatility. To this, Bali et al. (2005) argue the two variables should be created in a same way and use the value-weighted return and idiosyncratic volatility portfolios to investigate the relation. After extending the study period to August, 1963 to December, 2001, the significant positive relation turns to be insignificant.

The other rationales to the divergent empirical results include the regression model setting and the data. Goyal and Santa-Clara (2003), Ang et al. (2006, 2009), and Fu (2009) use the cross-sectional regression model of Fama Macbeth (1973). Contrarily, Bali et al. (2005) use the time-series regression model. Intuitively, the regression model setting probably induces the different results. As to the data, Goyal and Santa-Clara (2003), Ang et al. (2006), Bali et al. (2005), and Fu (2009) use the samples from NYSE/AMEX/NASDAQ. Among them, Goyal and Santa-Clara (2003) and Bali et al. (2005) segment the data by into several groups (NYSE/AMEX, NYSE, and NASDAQ) and the others use the samples from three different markets as a whole. As such, segmenting the data is suggestive. Finally, Bali and Cakici (2008) also indicate the data frequency, the way to create portfolio, the breakpoints for segmenting portfolios, and using either firm size, stock price, or liquidity to sieve samples out matter to the results.

Based on above issues, this study uses samples from Taiwan, China, and Hong Kong markets to investigate the relation between idiosyncratic volatility and expected return. Prior studies only study the samples in U.S.. Taking the considerations and arguments in related studies, this study sheds lights on the grand China markets due to the eastern Asian markets become more and more important over time.

3. Data and methodology

3.1 Data

This study use samples from Taiwan, China, and Hong Kong markets to investigate whether the idiosyncratic volatility matters to the expected stock return. Stocks traded in Taiwan Securities Exchange (TSE), Shanghai Stock Exchange (SSE), and Hong Kong Stock Exchange (HKE) are included from January 1996 to December 2010. Finally, 734, 914, and 1247 firms are obtained from TSE, SSE, and HKE over the 15 years (180 months). The monthly close price, the market value, and the book-to-market ratio for each sample are gathered from the Taiwan Economics Journal as well as the monthly stock market index and the risk free interest rate.

3.2 Measurement of idiosyncratic volatility

3.2.1 Asset pricing model

This study use two alternatives to measure firms' idiosyncratic volatility. For comparison, I first follow Bali et al. (2005) by using the market model.

$$R_{i,t} - r_{f,t} = \alpha_{i,t} + \beta_{i,t}(R_{m,t} - r_{f,t}) + \varepsilon_{i,t} \tag{1}$$

where the $R_{i,t}$ is the daily stock return for firm *i* at day *t*, $r_{f,t}$ is the risk free interest rate at day *t* and $R_{m,t}$ is the market return at day *t*. The $\beta_{i,t}$ is the parameter of market risk premium and the $\varepsilon_{i,t}$ is the residual term for firm *i* at day *t.* I square the residual term as the idiosyncratic volatility for firm *i* at day *t.*

Following Fu (2009), this study also use the three factors model of Fama and French (1993) to estimate the idiosyncratic volatility. The model is:

$$R_{i,t} - r_{f,t} = \alpha_{i,t} + \beta_{i,t}(R_{m,t} - r_{f,t}) + s_{i,t}SMB_t + h_{i,t}HML_t + \varepsilon_{i,t} \tag{2}$$

where the the $R_{i,t}$ is the daily stock return for firm *i* at day *t*, $r_{f,t}$ is the risk free interest rate at day *t* and $R_{m,t}$ is the market return at day *t*. The $\beta_{i,t}$ is the parameter of market risk premium and the $\varepsilon_{i,t}$ is the residual term for firm *i* at day *t.* The SMB_t and HML_t are the risk premium factors of size and book-to-market ratio effects. After the estimation, the squared residual term is the idiosyncratic volatility for firm *i* at day *t.* The $s_{i,t}$ and $h_{i,t}$ are the factor loadings of the three-factor model.

3.2.2 Residual estimation

There are several ways to estimate the above two equations. This study not only follows Bali et al. (2005) to use the OLS method but also follows Bollerslev (1986) and Lin et al. (2010) to use the GARCH(1,1) method for having a better and solid estimation. The advantage of using GARCH(1,1) is it takes the consideration of heterogamous in variance in time series data that is ignored in OLS approach. The residual term is set as:

$$\varepsilon_{i,t} \mid \psi_{t-1} \sim N(0, h_{i,t}^2) \tag{3}$$

$$h_{i,t}^2 = \phi_0 + \phi_1 \cdot \varepsilon_{i,t-1}^2 + \phi_2 \cdot h_{i,t-1}^2 \tag{4}$$

where the ψ_{t-1} represents the information set at time *t-1* and ϕ_0 、ϕ_1 、ϕ_2 are the non-negative parameter with the property of $\phi_0 + \phi_1 < 1$. In addition, the $h_{i,t}^2$ is the idiosyncratic volatility for firm *i* at day *t*.

Since the squared residual represents the daily idiosyncratic volatility, this study then turns the data frequency from daily basis to monthly basis by:

$$IV_{i,T}^{OLS} = \sum_{t=1}^{d} \varepsilon_{i,t}^2 \tag{5}$$

$$IV_{i,T}^{GARCH} = \sum_{t=1}^{d} h_{i,t}^2 \tag{6}$$

where *d* is the number of days in the respective month for firm *i*.

In sum, this study uses two asset pricing models and two approaches to estimate firms' idiosyncratic volatility, named Market model by OLS (O-M), Market model by GARCH (G-M), Fama-French model by OLS (O-F), and Fama-French model by GARCH (F-G).

3.2.3 Portfolio construction

According to Bali et al. (2005), the portfolio can be constructed by either equal-weighted or value-weighted. In this study, the idiosyncratic volatility and excess return portfolios are constructed by month as:

$$IV_{ew,T} = \frac{1}{N_T}\sum_{i=1}^{N_T} IV_{i,T} \tag{7}$$

$$ER_{ew,T} = \frac{1}{N_T}\sum_{i=1}^{N_T} ER_{i,T} \tag{8}$$

where the $IV_{i,t}$ is the idiosyncratic volatility for firm *i* in month *t* and $ER_{i,t}$ is the excess return for firm *i* in month *t*. The N_T is the number of firms in the market in the respective month. The equal-weighted idiosyncratic volatility portfolio can be computed by equation (7) and the equation (8) generates the equal-weighted excess return portfolio.

$$IV_{vw,T} = \sum_{i=1}^{N_T} W_{i,T} IV_{i,T} \tag{9}$$

$$ER_{vw,T} = \sum_{i=1}^{N_T} W_{i,T} ER_{i,T} \tag{10}$$

where the $W_{i,T}$ is the weight firm *i* has in the market in month *T*.

3.3 Regression models

Following Bali et al. (2005), this study uses the four equations to investigate the relation between idiosyncratic volatility and excess return.

$$ER_{vw,T} = \alpha + \beta \cdot IV_{ew,T-1} + \varepsilon_T \quad (11)$$

$$ER_{vw,T} = \alpha + \beta \cdot IV_{vw,T-1} + \varepsilon_T \quad (12)$$

$$ER_{ew,T} = \alpha + \beta \cdot IV_{ew,T-1} + \varepsilon_T \quad (13)$$

$$ER_{ew,T} = \alpha + \beta \cdot IV_{vw,T-1} + \varepsilon_T \quad (14)$$

4. Empirical results

Stocks traded in Taiwan Securities Exchange (TSE), Shanghai Stock Exchange (SSE), and Hong Kong Stock Exchange (HKE) are included from January 1996 to December 2010. Finally, this study obtains 734, 914, and 1247 samples from TSE, SSE, and HKE over the 15 years (180 months). The number of observations are 98,284 in TSE, 117,449 in SSE, and 141,063 in HKE.

Table 1 presents the descriptive statistics of the excess return (*ES*), the four different idiosyncratic volatility ($IV_{O\text{-}M}$, $IV_{O\text{-}F}$, $IV_{G\text{-}M}$, and $IV_{G\text{-}F}$) in three main stock exchanges of the three markets. Firms in Hong Kong have higher excess return in average and are more volatile.

Table 1
Descriptive statistics

This table reports the descriptive statistics of samples in Taiwan Stock Exchange (TSE), Shanghai Stock Exchange (SSE), and Hong Kong Stock Exchange (HKE). The excess return (ES) is computed as the difference in real return and risk free interest rate. The idiosyncratic volatility is calculated by market model or three-factor model of Fama and French (1993) estimated by the OLS or GARCH (1,1) method.

	TSE				
	ER	$IV_{O\text{-}M}$	$IV_{O\text{-}F}$	$IV_{G\text{-}M}$	$IV_{G\text{-}F}$
Mean	0.0106	0.0124	0.0123	0.0126	0.0124
Std. Dev.	0.1488	0.0108	0.0106	0.0077	0.0076
Skewness	1.8121	1.9751	1.9778	1.8398	1.8627
Kurtosis	17.1846	8.7677	8.81	8.7458	8.9445
Observations	98,284	98,284	98,284	98,284	98,284
	SSE				
	ER	$IV_{O\text{-}M}$	$IV_{O\text{-}F}$	$IV_{G\text{-}M}$	$IV_{G\text{-}F}$
Mean	0.0129	0.0112	0.0112	0.0118	0.0117
Std. Dev.	0.1431	0.0105	0.0106	0.0087	0.0094
Skewness	1.1279	2.6484	2.7279	8.6593	9.4262
Kurtosis	9.4006	20.0405	21.3271	485.8581	589.8992
Observations	117,449	117,449	116,843	117,449	116,843
	HKE				
	ER	$IV_{O\text{-}M}$	$IV_{O\text{-}F}$	$IV_{G\text{-}M}$	$IV_{G\text{-}F}$
Mean	0.0154	0.0304	0.0303	0.0326	0.0326
Std. Dev.	0.2558	0.0398	0.0397	0.0322	0.0322
Skewness	21.2427	2.9957	2.9957	2.8529	2.8555
Kurtosis	1475.881	15.8669	15.8756	16.4698	16.5105
Observations	141,063	141,063	141,063	141,063	141,063

This study uses the equation (11) to (14) to investigate the relation between idiosyncratic volatility and excess return for having consolidate return in grant China area. Table 2 to Table 4 present the regression results of the main stock exchange in Taiwan, China, and Hong Kong markets. The dependent variable is the excess return

Table 2
Regression analysis in Taiwan

Using the data from Taiwan Stock Exchange (TSE), this study obtains 734 firms and 98,284 observation from January 1996 to December 2010. This table reports the regression result for understanding the relation between the equal- or value-weighted excess return and the equal- or value-weighted idiosyncratic volatility that is estimated by either market model or three-factor model of Fama and French (1993) with OLS or GARCH method. Panel A presents the results that using equal-weighted excess return as dependent variable and Panel B reports the results that using value-weighted excess return as dependent variable..

Panel A (ER_{ew})								
	OLS-Market		OLS-Fama		GARCH-Market		GARCH-Fama	
	IV_{ew}	IV_{vw}	IV_{ew}	IV_{vw}	IV_{ew}	IV_{vw}	IV_{ew}	IV_{vw}
α	0.0432***	0.0330**	0.0420***	0.0324**	0.0746***	0.0525***	0.0739***	0.0521***
P-value	(0.0070)	(0.0138)	(0.0097)	(0.0161)	(0.0008)	(0.0039)	(0.0010)	(0.0045)
β	-2.5950**	-2.5272*	-2.5281*	-2.4929	-5.0454***	-4.6577**	-5.0505***	-4.6667**
P-value	(0.0421)	(0.0955)	(0.0541)	(0.1077)	(0.0048)	(0.0250)	(0.0060)	(0.0280)
Adj. R^2	0.0138	0.0078	0.0118	0.0068	0.0292	0.0176	0.0276	0.0167
Panel B (ER_{vw})								
	OLS-Market		OLS-Fama		GARCH-Market		GARCH-Fama	
	IV_{ew}	IV_{vw}	IV_{ew}	IV_{vw}	IV_{ew}	IV_{vw}	IV_{ew}	IV_{vw}
α	0.0453***	0.0284**	0.0448***	0.0284**	0.0699***	0.0407**	0.0697***	0.0403**
P-value	(0.0016)	(0.0223)	(0.0019)	(0.0235)	(0.0007)	(0.0261)	(0.0008)	(0.0289)
β	-2.2967*	-1.3524	-2.2834*	-1.3634	-4.2107**	-2.696	-4.2491**	-2.6798
P-value	(0.0528)	(0.3856)	(0.0595)	(0.3918)	(0.0133)	(0.2286)	(0.0143)	(0.2405)
Adj. R^2	0.0117	-0.0013	0.0106	-0.0014	0.0221	0.0033	0.0212	0.0028

constructed by either equal- or value-weighted and the independent variable is one of the four different idiosyncratic volatility.

As can be seen, the idiosyncratic volatility has no significant relation with the excess return in Hong Kong that consists with tradition capital asset pricing model. However, the empirical data show the relation is significant in either Taiwan and

Table 3

Regression analysis in China

Using the data from Shanghai Stock Exchange (SSE), this study obtains 914 firms and 117,449 observations from January 1996 to December 2010. This table reports the regression result for understanding the relation between the equal- or value-weighted excess return and the equal- or value-weighted idiosyncratic volatility that is estimated by either market model or three-factor model of Fama and French (1993) with OLS or GARCH method. Panel A presents the results that using equal-weighted excess return as dependent variable and Panel B reports the results that using value-weighted excess return as dependent variable.

Panel A (ER_{ew})

	OLS-Market		OLS-Fama		GARCH-Market		GARCH-Fama	
	IV_{ew}	IV_{vw}	IV_{ew}	IV_{vw}	IV_{ew}	IV_{vw}	IV_{ew}	IV_{vw}
α	-0.0175	-0.0170	-0.0236 **	-0.0183 *	-0.0239	-0.0191	-0.0280 **	-0.0228
P-value	(0.2037)	(0.1657)	(0.0387)	(0.0868)	(0.1981)	(0.2357)	(0.0409)	(0.0776)
β	2.8636 **	3.7994 **	3.3761 ***	3.9126 ***	3.2639 *	3.8197 **	3.5255 ***	4.1478 ***
P-value	(0.0381)	(0.0162)	(0.0036)	(0.0050)	(0.0599)	(0.0490)	(0.0068)	(0.0093)
Adj. R2	0.0273	0.0300	0.0574	0.0456	0.0216	0.0153	0.0486	0.0350

Panel B (ER_{vw})

	OLS-Market		OLS-Fama		GARCH-Market		GARCH-Fama	
	IV_{ew}	IV_{vw}	IV_{ew}	IV_{vw}	IV_{ew}	IV_{vw}	IV_{ew}	IV_{vw}
α	0.0002	-0.0051	-0.0086	-0.0087	-0.0066	-0.0083	-0.0140	-0.0119
P-value	(0.9846)	(0.6413)	(0.4426)	(0.4117)	(0.6734)	(0.5566)	(0.2955)	(0.3314)
β	1.4970	2.6733 *	2.3014 **	3.1193 **	2.0105	2.8801 *	2.5534 **	3.2066 **
P-value	(0.1886)	(0.0504)	(0.0426)	(0.0293)	(0.1649)	(0.0907)	(0.0445)	(0.0401)
Adj. R^2	0.0043	0.0139	0.0208	0.0238	0.0058	0.0075	0.0202	0.0164

China market. In other words, the idiosyncratic volatility matters to the excess return in both Taiwan and China markets. Interestingly, the results display a negative relation in Taiwan and a positive relation in China. That is, results from Taiwan consist with Ang et al. (2009) and results from China are consistent with Goyal and Santa-Clara (2003), finally the results from Hong Kong consists with Bali et al. (2005).

Table 4
Regression analysis in Hong Kong

Using the data from Hong Kong Stock Exchange (HKE), this study obtains 1247 firms and 141,063 observation from January 1996 to December 2010. This table reports the regression result for understanding the relation between the equal- or value-weighted excess return and the equal- or value-weighted idiosyncratic volatility that is estimated by either market model or three-factor model of Fama and French (1993) with OLS or GARCH method. Panel A presents the results that using equal-weighted excess return as dependent variable and Panel B reports the results that using value-weighted excess return as dependent variable.

	Panel A (ER_{ew})							
	OLS-Market		OLS-Fama		GARCH-Market		GARCH-Fama	
	IV_{ew}	IV_{vw}	IV_{ew}	IV_{vw}	IV_{ew}	IV_{vw}	IV_{ew}	IV_{vw}
α	0.0026	0.0126	0.0024	0.0127	0.0126	0.0162	0.0125	0.0163
P-value	(0.8767)	(0.2913)	(0.8875)	(0.2912)	(0.6282)	(0.3416)	(0.6313)	(0.3390)
β	0.3620	0.1343	0.3696	0.1201	0.0353	-0.2611	0.0387	-0.271
P-value	(0.5568)	(0.9311)	(0.5511)	(0.9391)	(0.9671)	(0.9001)	(0.9639)	(0.8965)
Adj. R^2	-0.0031	-0.0056	-0.0031	-0.0056	-0.0056	-0.0055	-0.0056	-0.0055

	Panel B (ER_{vw})							
	OLS-Market		OLS-Fama		GARCH-Market		GARCH-Fama	
	IV_{ew}	IV_{vw}	IV_{ew}	IV_{vw}	IV_{ew}	IV_{vw}	IV_{ew}	IV_{vw}
α	0.0055	0.0075	0.0053	0.0075	0.0056	0.0054	0.0056	0.0055
P-value	(0.6791)	(0.4439)	(0.6910)	(0.4487)	(0.7922)	(0.7199)	(0.7930)	(0.7180)
β	0.2333	0.5857	0.2397	0.5869	0.2147	0.7712	0.2154	0.7672
P-value	(0.6275)	(0.6559)	(0.6205)	(0.6595)	(0.7616)	(0.6792)	(0.7608)	(0.6815)
Adj. R^2	-0.0042	-0.0038	-0.0041	-0.0039	-0.0050	-0.0037	-0.0050	-0.0037

Three possible relations between the idiosyncratic volatility and the excess return show in great China markets. Such findings indicate the methodology matters to the result in studying the influence of idiosyncratic volatility. Worth noting that, the relation becomes insignificant when using the value-weighted excess return and idiosyncratic volatility portfolios in Taiwan. This finding consists with the argument of Bali et al. (2005) that value-weighted portfolio is more suitable to investigate the relation between the idiosyncratic volatility and the excess return since it takes the size effect into consideration. In short, this study evidences the idiosyncratic volatility cannot explain the excess return in Taiwan and Hong Kong. The results also indicate the portfolio should be constructed by value-weighted rather than equal-weighted.

However, Bali et al. (2005) argue the liquidity might also be the factor that influences the relation. As a sequence, this study goes further to take the liquidity issue into consideration. In the following section, this study uses the Taiwan samples and the stock turnover for having a clear understanding on the influence of liquidity.

5. Liquidity

The stock turnover reveals the degree of divergence on the current stock price in the market. Higher stock turnover of a stock means the more liquidity the firm has and the more divergence of opinion on the current stock price, consequently, making the return cannot be predicted precisely. Therefore, this study extends the equation (15) to (17) in the following setting:

$$ER_{ew,T} = \alpha + \beta_1 \cdot IV_{ew,T-1} + \beta_2 \cdot Turn_{ew,T-1} + \varepsilon_T \tag{15}$$

$$ER_{ew,T} = \alpha + \beta_1 \cdot IV_{vw,T-1} + \beta_2 \cdot Turn_{vw,T-1} + \varepsilon_T \tag{16}$$

$$ER_{vw,T} = \alpha + \beta_1 \cdot IV_{ew,T-1} + \beta_2 \cdot Turn_{ew,T-1} + \varepsilon_T \tag{17}$$

where the $Turn_{ew,T-1}$ and $Turn_{vw,T-1}$ are the equal-weighted and value-weighted stock turnover portfolio. This study uses the data from Taiwan and report our results in Table 5.

Table 5

Regression Analysis with controlling liquidity

Taking the liquidity into consideration, this table reports the results that take stock turnover as the control variable in the regression analysis. Using the Taiwan data, this study further investigate the equal- and value-weighted excess return portfolio and the equal- and value-weighted idiosyncratic volatility estimated by market model or three-factor model through OLS or GARCH method. The $IV_{ew,OM}$ ($IV_{vw,GF}$) presents idiosyncratic volatility portfolio is constructed by equal-weighted (valued-weighted) and is estimated by OLS using market model (GARCH using Fama-French three-factor model). Also, the stock turnover portfolio is constructed as same as the idiosyncratic volatility portfolio in the same equation.

		α	β_1	β_2	Adj. R^2
ER_{ew}	$IV_{ew,OM}$	0.0449**	-2.5034*	-0.0135	0.0084
		(0.0138)	(0.0782)	(0.8436)	
	$IV_{vw,OM}$	0.0330**	-2.5169	-0.0007	0.0021
		(0.0163)	(0.2734)	(0.9945)	
	$IV_{ew,OF}$	0.0438**	-2.4192*	-0.0152	0.0064
		(0.0169)	(0.0992)	(0.8245)	
	$IV_{vw,OF}$	0.0326**	-2.4024	-0.0058	0.0012
		(0.0181)	(0.3057)	(0.9529)	
	$IV_{ew,GM}$	0.0743***	-5.0808**	0.0036	0.0237
		(0.0010)	(0.0112)	(0.9576)	
	$IV_{vw,GM}$	0.0548***	-6.2519*	0.0699	0.0144
		(0.0031)	(0.0533)	(0.4835)	
	$IV_{ew,GF}$	0.0737***	-5.0839**	0.0033	0.0221
		(0.0013)	(0.0136)	(0.9618)	
	$IV_{vw,GF}$	0.0545***	-6.2214*	0.0664	0.0132
		(0.0037)	(0.0608)	(0.5071)	
$ERvw$	$IV_{ew,OM}$	0.0431***	-2.4155*	0.0175	0.0065
		(0.0061)	(0.0763)	(0.7990)	
	$IV_{ew,OM}$	0.0427***	-2.4051*	0.017**	0.0053
		(0.0068)	(0.0855)	(0.8049)	
	$IV_{ew,GM}$	0.0673***	-4.4971**	0.0291	0.0175
		(0.0009)	(0.0216)	(0.6678)	
	$IV_{ew,GF}$	0.0673***	-4.5511**	0.0294	0.0166
		(0.0010)	(0.0230)	(0.6655)	

*, **, *** represent the significance level of 10%, 5%, and 1% respectively

Most of the β_2 are found to be negative significantly in Table 5. Such findings indicate the liquidity is not the key factor that masters the relation no matter the portfolio is constructed either the equal-weighted or value-weighted. In other word, the way to construct portfolio is the main rationale to the investigation of idiosyncratic volatility and the excess return.

Worth noting that, predictive power is insignificant in both Taiwan and Hong Kong but not in China. This reality raises a question that the market efficiency probably is a rationale to the predictive power of idiosyncratic volatility. It is well known that the Taiwan and Hong Kong stock markets are more mature than the China stock market. Investors in mature market can diversify their investment easily, whereas the ones in developing market might not. This idea somewhat consists with the argument of Merton (1987) that investors will ask the risk premium when the idiosyncratic risk cannot be diversified. Following the stem, this study tries to investigate whether the market efficiency plays a role that affects the predictive power of idiosyncratic volatility in next section.

6. Market efficiency

China government restricted their markets rigidly in the early stage, making the financial market less efficient. However, the market becomes more liquid and efficient when the government releases the restrictions step by step since Apr. 2005 (Chong et al., 2012) . Therefore, this study argues the financial market in China is less efficient and becomes more and more efficient after April 2005. As such, we probably find the idiosyncratic volatility has no predictive power on the excess return after April 2005.

Table 6

Regression analysis in Shanghai stock market: Equal-weighted portfolio

This table reports the regression results that use equation (11) and (12) for understanding whether the predictive power of idiosyncratic volatility is significant in either the period of January 1996 to March 2005 (in Panel A) or April 2005 to December 2010 (in Panel B). The equal-weighted excess return portfolio is employed as the dependent variable in the regression model.

	Panel A (1996/1-2005/3)							
	OLS-Market		OLS-Fama		GARCH-Market		GARCH-Fama	
	IVew	IVvw	IVew	IVvw	IVew	IVvw	IVew	IVvw
α	-0.0178	-0.0188	-0.0256**	-0.0205*	-0.0172	-0.0170	-0.0289**	-0.0241*
P-value	(0.1979)	(0.1444)	(0.0357)	(0.0773)	(0.3192)	(0.2958)	(0.0356)	(0.0703)
β	2.6657	3.3648**	3.3759***	3.4125**	2.3386	2.8028	3.3083**	3.3998**
P-value	(0.0624)	(0.0366)	(0.0086)	(0.0221)	(0.1402)	(0.1206)	(0.0147)	(0.0325)
Adj. R2	0.0219	0.0333	0.0609	0.0525	0.0067	0.0097	0.0436	0.0363
	Panel B (2005/4-2010/12)							
	OLS-Market		OLS-Fama		GARCH-Market		GARCH-Fama	
	IVew	IVvw	IVew	IVvw	IVew	IVvw	IVew	IVvw
α	-0.0057	-0.0056	-0.0084	-0.0046	-0.0199	-0.018	-0.0087	-0.0099
P-value	(0.8571)	(0.8386)	(0.7299)	(0.8345)	(0.6365)	(0.6269)	(0.7698)	(0.7097)
β	2.3819	3.6234	2.6346	3.6228	3.3878	4.9711	2.6205	4.1574
P-value	(0.3406)	(0.2575)	(0.1822)	(0.1672)	(0.3038)	(0.2560)	(0.2534)	(0.1816)
Adj. R^2	-0.0002	0.004	0.0096	0.0114	0.0029	0.003	0.0047	0.0089

This study divides the investigation period into two segments: January 1996 to March 2005 and April 2005 to December 2010. Using the equation (11) to (14), this study reexamines the relation between idiosyncratic volatility and excess return. The results are reported in Table 6 and 7.

Obviously, Table 6 Panel A shows similar results to that is found in Table 3. Such findings initially consist with the expectation. However, results from Panel B show there is no significant relation between the idiosyncratic volatility and the excess

Table 7

Regression analysis in Shanghai stock market: Value-weighted portfolio

This table reports the regression results that use equation (13) and (14) for understanding whether the predictive power of idiosyncratic volatility is significant in either the period of January 1996 to March 2005 (in Panel A) or April 2005 to December 2010 (in Panel B). The equal-weighted excess return portfolio is employed as the dependent variable in the regression model.

	Panel A (1996/1-2005/3)							
	OLS-Market		OLS-Fama		GARCH-Market		GARCH-Fama	
	IVew	IVvw	IVew	IVvw	IVew	IVvw	IVew	IVvw
α	-0.0074	-0.0103	-0.0168	-0.0131	-0.0111	-0.0114	-0.0193	-0.0152
P-value	(0.5692)	(0.3831)	(0.1860)	(0.2609)	(0.4961)	(0.4530)	(0.1503)	(0.2317)
β	2.3424 *	3.2433**	3.3338**	3.5425**	2.4851	3.0296*	3.1453**	3.2838*
P-value	(0.0801)	(0.0310)	(0.0263)	(0.0346)	(0.1314)	(0.0968)	(0.0328)	(0.0501)
Adj. R^2	0.0133	0.0279	0.0449	0.0435	0.0076	0.0115	0.0291	0.0248
	Panel B (2005/4-2010/12)							
	OLS-Market		OLS-Fama		GARCH-Market		GARCH-Fama	
	IVew	IVvw	IVew	IVvw	IVew	IVvw	IVew	IVvw
α	0.0175	0.0101	0.0046	0.004	0.0041	0.0032	-0.0038	-0.0003
P-value	(0.5365)	(0.6785)	(0.8642)	(0.8664)	(0.9115)	(0.9211)	(0.9069)	(0.9922)
β	0.3474	1.3179	1.3011	2.0595	1.2885	2.0647	1.8659	3.1687
P-value	(0.8661)	(0.6298)	(0.5196)	(0.4458)	(0.6443)	(0.5831)	(0.4341)	(0.4332)
Adj. R^2	-0.0148	-0.012	-0.0094	-0.007	-0.0119	-0.0113	-0.0056	-0.0069

returns. Similar scenario is also found when the value-weighted portfolios are used (in Table 7). This study provides evidence that the market efficiency also affects the influence of idiosyncratic volatility on the excess return.

7. Conclusion

Classical financial theory proposes that stock returns are priced by the systematic risk and the idiosyncratic risk can be diversified away. However, studies on examining the predictive power of idiosyncratic volatility on the excess return remain an open question. Goyal and Santa-Clara (2003), Malkiel and Xu (2002), and Spiegel and

Wang (2006) find a positive relation between them. Bali et al. (2005), Wei and Zhang (2005), and Fu (2009) find no significant relation and provide support to the classical financial pricing theory. Interestingly, Ang et al. (2006, 2009) find a negative relation to it. Inconsistent empirical results challenge the capital asset pricing theory.

Most of empirical studies examine the relation by using the U.S. data. Since the growth and importance of great China in world economics, this study uses data from Taiwan, China, and Hong Kong to investigate whether the idiosyncratic volatility has predictive power on excess return. Taking the arguments raised by prior literatures, this study also focus on the way to construct excess return and idiosyncratic volatility portfolios, and the methodologies which are used for estimating the idiosyncratic volatility. This study finds the idiosyncratic volatility cannot predict the excess return in Hong Kong and Taiwan markets. The empirical results also provide support to Bali et al. (2005) and suggest the portfolio should be constructed in value-weighted.

This paper also finds the liquidity issue in examining the explanatory power of idiosyncratic volatility does not stand. When stock turnover is used as control variable in the regression analysis, the relation between idiosyncratic volatility and excess return remains unchanged. Finally, this study evidences that market efficiency is also a rationale to the productiveness of idiosyncratic volatility. In Shanghai stock market, the idiosyncratic volatility has no predictive power on the excess return in recent years. This finding consists with the argument of Merton (1987) that investors will ask the risk premium when the idiosyncratic risk cannot be diversified. Such incapable of diversification is quite common in most of developing markets.

Contributions in this study are four-fold. First, it extends the study from developed markets to the great China markets that are growing rapidly in recent years and become more and more critical in world economics. The empirical results consist with classical asset pricing theory and show the idiosyncratic volatility cannot explain the excess return in Taiwan, China, and Hong Kong stock exchanges. Second, this study argues that, rather than the equal-weighted portfolios, value-weighted portfolios should be used to investigate the productiveness of idiosyncratic volatility. The construction of value-weighted portfolios takes the size effect into consideration, making the investigation more reasonable. Third, this study finds the liquidity does not matter to the investigation. Finally, from the assumption of perfect financial market, I argue the market efficiency influences the investigation. Investors cannot diversify their investment in imperfect financial market, leading to the idiosyncratic volatility be involved in risk premium.

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GENDER DIFFERENCES IN NEGOTIATING AUDIT FEES

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Abstract

This study examines the association between the existence of a female audit engagement partner and audit fees. We adapt the model in Ittonen and Peni (2012) and include an interaction term to capture possible joint countervailing effects between the existence of female directors and female audit engagement partner. Using a sample of public firms from the Bursa Malaysia, we find evidence indicating that firms with female audit engagement partners have significantly charged higher audit fees and interact with the existence of female directors. Therefore, our findings indicate that gender differences affects audit pricing and may have important implications for the audit quality. Another potential reason for the significant association is a female audit engagement partner has good bargaining power in the audit fees negotiation.

INTRODUCTION

Gender difference has been a topic of both interest and controversy for many years. Gender difference has focused particularly on the difference in attitude, character and tendency of males and females in decision-making and management. Females are arguably cautious, intuitive, and meticulous in discharging their responsibilities. Thus, the characteristics of females ensure that an organization is more effective and sustainable. Indeed, gender difference has become a resource of diversity in an organization in which every organization currently recognizes the contributions of females. Not surprisingly, nowadays there are efforts worldwide to ensure that all corporate sectors involve females in corporate decision-making. For example, some European countries – Sweden, Norway and Spain – have imposed legal requirements to ensure that the corporate sector provides 25% to 40% of board seats to females. In Malaysia, such efforts have been introduced, in that the cabinet has approved a policy to ensure that by 2015, 30% of decision-making positions are allocated to females. This is an effort to ensure that females have equal rights in the corporate sector as well as helping females to advance in their careers (The Star Online, 27 June 2011).

Gender difference is also seen in terms of how one negotiates, because, according to previous studies, males and females have different negotiating styles. Thus, gender difference has become an important research topic in respect of negotiations with many studies having been conducted to examine its effect thereon (Kray, Thompson, & Galinsky 2001; Kray, Galinsky, & Thompson 2002; Kray & Thompson 2005). Gender differences have arguably had a significant impact on negotiations (Eckel, de Oliveira & Grossman, 2008). This is because there are differences between females and males in respect of attitude and behaviour in the way they negotiate. For example, females are said to be more cooperative than males who are considered more competitive or self-serving. In addition, on average, males are said to reap more favourable outcomes than females.

Gender and negotiation studies have been conducted in the fields of psychology, conflict management and management. Recently, gender studies have been conducted in the field of corporate governance. The studies examine how female directors are a source of diversity on the board of directors, which, in turn, influences corporate governance outcomes. Board diversity is a key to ensure effective corporate governance (Gul, Hutchinson & Lai, 2013). In addition, recently, studies to understand how auditors and management negotiate in resolving contentious accounting issues have been conducted. An accounting negotiation model was developed by Gibbins, Salterio & Webb (2001), which has formed the basis for negotiation research in accounting and auditing. Negotiation is an important element in auditor-client relationships because contentious accounting and auditing issues and audit fee related issues are resolved through negotiation.[1]

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[1] See Salterio (2012) for a detailed summary of this literature.

In addition, many studies have been conducted on audit fees. Audit fees are considered to be a measurement of the quality of the audit work. High audit fees provide the impression that the audit quality is high because the audit firm sets audit fees based on the extent of work performed and the involvement of experienced auditors. Most previous studies focused on the effect of corporate governance on audit fees. A small but growing body of research explored the association between audit fees and the gender of the audit partner (Ittonen & Peni, 2012), and the gender of the audit committee members (Ittonen & Miettinen, 2010). However, to the best of our knowledge, limited studies are available that examine the effect of the gender of the audit partner, audit committee members and directors on audit fees. Particularly, research conducted on how gender differences affect the negotiation between auditors and clients concerning audit fees. Undoubtedly, previous studies have shown that one of the issues that is negotiated is setting the audit fees (Beattie, Fearnley & Brandt, 2000). Therefore, audit fees, which are disclosed in the financial statements, are the result of negotiations between the auditor and client management. However, the study by Beattie, Fearnley & Brandt (2000) only described the issues and the parties that were involved in the negotiations between the auditor and client management.

This study aims to examine the effect of gender differences on the negotiation of audit fees. Although many studies have been conducted to examine the effect of gender differences in the corporate governance literature, to the best of our knowledge, only two studies have been conducted to examine the effect of gender differences on the audit fees, i.e. the studies conducted by Ittonen & Peni (2012), and Ittonen & Miettinen (2010). Therefore, this study aims to extend the previous studies concerning the effect of the gender differences of the audit partner and audit committee member on the audit fees to include the gender of directors. In addition, the effect of gender differences on audit fees will be underpinned by the negotiation theory. This study used secondary and archival data in response to the call by Salterio (2012) for employing the archival approach in auditor-client negotiation research.

The study found that gender differences affect the negotiation of audit fees. Consistent with the findings of Ittonen & Peni (2012), female audit partners set higher audit fees. Nevertheless, the findings of this study indicate that companies with female audit committee members pay higher audit fees. These findings are inconsistent with the findings of Ittonen & Miettinen (2010) who found that companies with female audit committees pay lower audit fees. However, the study found that companies with female directors on the board pay significantly lower audit fees. In addition, this study further tested the interaction effect between female audit partners and female directors; and between female audit partners and female audit committees, and found that the effects of both interactions are significant. The first interaction effect of female audit partners and female directors is positive and significant, while the interaction effect of female audit partners and female audit committees is negative and significant. The results show that when audit fee negotiations involve females for both parties, there is a change in the direction of the association. This suggests that gender differences affect audit fee negotiation – either it increases or decreases the audit fees. In general, the findings of this study are consistent with previous findings on gender differences in general negotiation literature and audit fee literature. However, as this study is exploratory in nature, these findings should be interpreted with caution.

BACKGROUND AND PRIOR LITERATURE

Audit fees are the result of negotiations between the auditor and client management (Beattie, Fearnley & Brandt, 2000). Audit fees are also a measure of the amount of work performed by auditors based on the risk assessed by the auditors in the audit planning. Audit partners should plan the nature, timing and extent of the audit procedures for an audit. Thus, the amount of audit fees charged to the audited company is in proportion to the extent of the audit procedures and the involvement of audit experts (Ittonen & Peni, 2012). Auditors discuss the scope of audit works and negotiate to resolve contentious accounting issues with the client. Therefore, the negotiation styles of the audit partner and the client are very important in resolving accounting issues. If the accounting issues can be easily completed at the negotiation table between the audit partner and client, it will save time and the amount of audit work required, which, in turn, reduces the cost of the audit. If costs can be saved by the auditor, the audit fees charged to the client are lower. Therefore, the negotiation ability is arguably the most important skill for auditors and clients.

Negotiation and Gender Differences

Negotiation is a process whereby two or more parties with differing preferences jointly make decisions that affect the welfare of both (or all) parties (Murnighan & Bazerman, 1990). A basic negotiation model comprises three elements. The first element concerns the issues or topics under dispute between disputants, which can be single issues or a group of issues (Carnevale & Pruitt, 1992). "Each issue entails two or more options" (Pruitt & Carnevale, 1993, p.14); thus, a decision has to be made in order to choose which option gives the best outcome for the disputants. For example, consider the negotiation of audit fees between the auditor and a client.

An auditor may want to increase their fees by 10% but the client only wants to give an increase of 5%. Thus, to resolve this issue the auditor and client have to engage in a negotiation process. The second element is process; where, in general, the negotiation process is dynamic and ongoing (Rojot, 1991). According to Lewicki (2004), several features are characteristic of the negotiation process. For example, the process involves two or more parties; the parties are in dispute or conflict concerning certain issues; which, in turn, leads to the disputants finding techniques to resolve the dispute. The third element is the outcome. The main purpose of negotiation is to resolve disputes, and thus the outcome from the negotiation is important to the disputants (Pruitt & Carnevale, 1993).

As suggested by Carnevale & Pruitt (1992), there are four possible outcomes of a negotiation. The first is no agreement in which the parties do not reach any agreement in their disputes. However, the process of negotiation is to facilitate the disputants to reach an agreement, thus an outcome of no agreement is the limit for negotiators.

Using the previous illustration, no agreement means that the auditor and client do not find any solution to their dispute over fees. The second is victory for one party; this may be described as a distributive outcome because the outcome confers victory to one party. As a result, the other party loses what the victorious party wins (Lewicki, Weiss, & Lewin, 1992). The result from the fee negotiation would be either the auditor gaining a 10% increment and the client losing 5%, or the client giving a 5% increment and the auditor losing 5%. The third is a simple compromise; this refers to some middle ground on the two parties' initial preferences (Pruitt, 1981, as cited in Carnevale & Pruitt, 1992). In the pay negotiation example, a simple compromise would be both parties choosing the middle option, which is a 7.5% increment. Finally, is the win-win agreement (integrative agreement); this is defined as an option that increases the size of the joint benefit to the disputants (Lewicki, Weiss, & Lewin, 1992). For example, in the negotiations concerning the fee increase, the auditor may receive a 10% increment; however, in return they agree to expedite the audit process and increase audit quality to satisfy the client's needs. Hence, the parties reach an agreement in which both parties benefit and neither party loses in the negotiation.

Negotiation skills are very important for one to possess. The sex of the negotiator has been included as one of many individual background variables in the research on negotiation (Rubin & Brown, 1975) because the issue of individual difference dominates much of the thinking and research on the topic. Researchers have concluded that gender differences, i.e. how females and males behave in competitive contexts, have a major impact on their performance at the bargaining table, which, in turn, leads to differences in negotiation behaviour and outcomes. Negotiation research has produced a wide variety of evidence on the subject of gender differences and has become an important topic in the study of negotiation (Kray, Thompson & Galinsky 2001; Kray, Galinsky & Thompson 2002; Kray & Thompson 2005).

Eriksson & Sandberg (2012) suggested that the behaviour of males is more competitive, or self-serving, than that of females. Therefore, on average, males reap more favourable outcomes than females. Previous research suggested that males are expected to perform better in negotiation because they set higher goals for themselves and tend to negotiate in a more competitive style; therefore, they often achieve better economic outcomes than females in negotiation (Walters, Stuhlmacher & Meyer 1998; Stuhlmacher & Walters 1999; Kray & Thompson 2005).

On the other hand, previous research suggested that females are more cooperative or altruistic; therefore, the nature of females affects their behaviour and performance in a negotiation. Particularly, when females have to negotiate over certain issues they behave in a manner that would help build long-term relationships and that would help teams reach agreement in sensitive situations (Eckel *et al.*, 2008). In negotiation research, cooperation is often identified as being important for the development of mutually satisfactory outcomes (Calhoun & Smith, 1999; Pruitt & Rubin, 1986). Consequently, the nature of females is well suited for the accomplishment of high joint benefit because they have the tendency to approach negotiation more cooperatively (Calhoun & Smith, 1999).

However, in a situation where females have to negotiate on behalf of others and not for themselves, they ask for better economic outcomes (Bowles, Babcock & McGinn, 2005). In other words, females mirror males when they negotiate on behalf of others and negotiate with females (Niederle & Vesterlund, 2008). Hence, females are as competitive as males when competing against females, but not when competing against males.

A small but growing body of research has explored accounting negotiation between auditors and clients.[2] Accounting negotiation literature is mostly based on the premise that audited financial statements involve negotiation between auditors and management (Gibbins, Salterio & Webb, 2001; Ng & Tan, 2003). Particularly, previous literature focused on the negotiations between the audit engagement partner and the chief financial officer (CFO) to resolve disputes over contentious accounting issues (Beattie, Fearnley & Brandt, 2001; Gibbins, Salterio & Webb, 2001; McCracken, Salterio & Gibbins, 2008). Recently, studies by Salleh & Stewart (2012; 2013) included the role that ACs play in resolving disagreements between auditors and clients over contentious accounting issues. However, to the best of our knowledge, none of the previous studies considered gender differences in the accounting negotiation research. In addition, most of the previous research employed qualitative interviews, experiential questionnaires and experimental studies to elicit information about negotiation between auditors and management. Salterio (2012, p. 271) considered that "the absence of archival research in this area is problematic" and encouraged the archival approach for researching auditor-client negotiation. Therefore, it is imperative to explore the effect of gender differences in auditor-client negotiation by employing the archival data approach.

Audit committee, Directors, Gender differences and Audit fees

Most of the previous studies on audit fees argued that audit fees are determined based on the costs incurred by the audit firm, through which costs and premiums will be charged to the company as audit fees. The cost of the audit is dependent on the extent of audit procedures performed and the involvement of experts in auditing a company. In other words, audit fees are suggested to be "a function of the audit team labor hours, the audit team labor costs per hour and a risk component" (Ittonen & Peni, 2012, p.3).

Previous studies found that the governance quality and audit fees have a positive relationship. For example, a study by Zaman *et al*. (2011) examined the relationship between governance quality and audit fees using a composite measure of audit committee effectiveness. They found that there is a positive and significant association between the audit committee and audit fee effectiveness. They suggested that an effective audit committee requests more external monitoring and controlling of

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[2] See Salterio (2012) and Brown, and Wright (2008) for detailed summaries of this literature.

a company's activities in order to reduce opportunistic managerial behaviour. Thus, it leads to a wider audit scope and higher audit fees.

Earlier, the studies by Collier & Gregory (1996), Carcello *et al.* (2002), Abbott *et al.* (2003), Goodwin-Stewart & Kent (2006), and Vafeas & Waegelein (2007) also found that there were positive relations between corporate governance mechanisms and audit fees. In all of the studies only the relationship between an effective audit committee and audit fees was examined, except for Carcello *et al.* (2002), who examined the relationship between an effective board and audit fees. They found a positive relationship between an effective board and audit fees.

The relationship between audit fees and corporate governance quality, represented by effective audit committee and effective board, are explained by using the theory of supply and demand. There are two different views when describing this relationship – the supply-side theory, which explains the negative relationship; and the demand-side theory, which explains the positive relationship between audit fees and effective corporate governance. Good corporate governance will enhance the effectiveness of internal control and thus reduce control and the inherent risks, which, in turn, reduces the substantive tests performed by auditors (Tsui *et al.,* 2001; Yatim *et al.,* 2006; Boo & Sharma 2008). When the audit procedures are reduced, the audit costs incurred by the audit firm are also reduced, which leads to a reduction of the audit fees charged to companies (Knechel & Willekens, 2006).

The demand-side theory explains that there is a demand from the audit committee or directors for better monitoring and better audit. They will buy a higher quality audit service to ensure high quality financial statements. Hence, there is a positive relationship between good governance and audit fees.

Most of the previous studies only investigated the determinants of the audit fees. Particularly, the studies only focused on the board of directors' characteristics, for example, the existence of independent directors. While previous studies on the board of directors investigated how the gender of directors contribute to the performance of companies, studies that focus on the gender of the board of directors and audit fees are limited. Therefore, it is important to investigate the influence of the gender of the directors on the negotiation of audit fees. In addition, previous studies also investigated the influence of audit committee existence and effective audit committee on audit fees. Currently, only the study of Ittonen & Miettinen (2010) investigated the association between female audit committee representation and audit fees. They found that companies with female audit committee chairs pay significantly lower audit fees. Their findings are contrary to those studies that simply observe the audit committee existence and effective audit committee, of which the relationship with audit fees is positive. Therefore, it is imperative to extend the research on the influence of the gender of the audit committee on audit fees to improve or strengthen the results of the previous studies.

In addition, previous studies examined the determinants of audit fees from the perspective of the audit firm. The size of audit, i.e. Big4 firm or medium or small size audit firm, was one of the determinants examined in the audit fee studies. The studies examined how the size of audit firms and industry specialization influence audit fees. Further, the research by Ittonen & Peni (2012) considered the characteristics of the audit partners involved in setting the audit fees. They examined how the gender of the audit partner influences the audit fees. Their study was based on gender differences in that the behaviour of females and males are different. Based on the premise that the behaviour of females and males is different, the audit fees will vary if the audit fees are set by the audit partners of a different gender. Their study found that female audit partners set a higher price than the male audit partners. They suggested that females are more risk averse than males so they increase audit investment and/or the risk premium to ensure a good quality audit.

Most of the previous studies only used the theory of supply and demand to understand and explain the relationship between audit fees and the characteristics of good corporate governance. However, no study has been conducted to examine the process of negotiation between the audit partner and the company to set the audit price. Therefore, it is important to use the negotiation theory to describe the relationship between the audit fees and the characteristics of good corporate governance. Specifically, how do the individual differences in terms of gender negotiation style influence the setting of the audit fees. Generally, the negotiation literature has proven that negotiation styles are influenced by gender due to the character differences between females and males. Therefore it is important to examine whether the gender of the audit committee, directors and audit partner influence the setting of the audit fees.

HYPOTHESES DEVELOPMENT

The literature on audit fees assumes that the pricing of an engagement may be affected; for example, by the characteristics of the audit firm or office. Given that differences may exist in the attributes of individual auditors, which could have an effect on the pricing of the audit engagement; for example, distinctions in engagement planning, negotiation skills, team management capabilities, and risk preferences, more research in this area is called for (e.g. DeFond & Francis, 2005).

Previous studies suggest that a process for determining the audit fees is one of the issues arising in the negotiations between the client and auditors. Therefore, given that females and males are different in terms of personality in negotiation, it is suggested that there are differences in the amount of audit fees to be determined if these negotiations involve different genders.

Based on previous studies that suggest that females are more cooperative or altruistic, we expect that when a female audit partner is involved in the negotiations to determine the audit fees, the fees that are determined are considered as being mutually beneficial to the audit firm and the client. An audit firm that is represented by a female audit partner negotiates with the client to ensure that the scope and the extent of audit procedures to be performed are optimum; and that the cost to be charged to the client is optimal. Therefore, the joint benefit means that the female audit partner provides a high quality audit at a certain fee charged to the client, which, eventually, builds a long-term relationship between the audit firm and the client. Previous studies suggest that a high quality audit comes with higher fees; therefore, we pose the following hypothesis:

H1: Female audit partners are likely to negotiate higher audit fees.

An audit committee is responsible for overseeing the financial reporting process. The committee is involved in negotiation to resolve contentious accounting issues as well as reviewing the scope and the extent of the audit work to be performed by the auditor. Therefore, it is the responsibility of the audit committee to ensure that the company receives a high quality audit for a reasonable audit fee. In addition, when a female audit committee is involved in the process of negotiation to resolve audit issues, it is argued that the resolution of the contentious accounting process becomes longer because females tend to be more objective, more sensible and more thoughtful. Given that the audit fees are charged based on the extent of audit procedures and time spent, the fees charged to the company will be higher. In addition, when a female has to negotiate on behalf of others, she will be more competitive and ask for better economic outcomes. Therefore, this study poses the following hypothesis:

H2: Female audit committee members are likely to negotiate higher audit fees.

Given that females are more competitive and ask for better economic outcomes when they negotiate on behalf of others, we posit that female directors negotiate lower audit fees. The directors are responsible to safeguard the interests of shareholders. The shareholders expect higher returns from their investments and expect a sustainable business. Hence, it is the responsibility of the directors to ensure that all the resources have been spent optimally and that the interests of shareholders have been protected. Therefore, this study poses the following hypothesis:

H3: Female directors are likely to negotiate lower audit fees.

In addition, females are also argued to mirror that of males when they negotiate with other females, or, in other words, females are as competitive as males (Niederle & Vesterlund, 2008). Therefore, in situations where negotiations in determining audit fees involve a female dyad they are more competitive in the negotiations. Each would expect a more favourable outcome to their negotiations. Thus, based on this premise, this study poses the following hypotheses:

H3: Female audit partners are likely to moderate the association between female audit committee members and audit fees.

H4: Female audit partners are likely to moderate the association between female directors and audit fees.

RESEARCH METHOD

Sample Selection and Data Collection

In order to test the study's hypotheses, a sample was drawn from the top 100 companies listed on Bursa Malaysia in 2010. This study employed the panel data approach to collect data for these companies for the period 2005-2009, as this approach provides more reliable estimations (Gujarati & Porter 2009) and is a more powerful instrument in testing audit fees or CG than the cross-sectional or time series approach (Henderson & Kaplan 2000; Brown *et al.*, 2011). However, due to missing data and to exclude financial companies, only 84 companies were included in the final sample resulting in 420 observations. Data were gathered from the OSIRIS database and manually collected from the annual reports downloaded from Bursa Malaysia.

Empirical Models

The panel data approach and random effects model were used to determine the association between audit fees and the gender of the audit partner, audit committee and director. The following models mathematically provide the empirical models for this study:

Model 1: Direct Effect

$$ADFEE_{it} = \beta_0 + \beta_1 APF_{it} + \beta_2 PFD_{it} + \beta_3 PACFD_{it} + \beta_4 BSZ_{it} + \beta_5 PBIND_{it} + \beta_6 BOM_{it} + \beta_7 ACSZ_{it} + \beta_8 PACINDit + \beta_9 ACAEX_{it} + \beta_{10} ACM_{it} + \beta_{11} LNCOSZ_{it} + \beta_{12} LEV_{it} + \beta_{13} PROF_{it} + \beta_{14} INV_{it} + \beta_{15} RCEV_{it} + \beta_{16} SQSUB_{it} + \beta_{17} PFSUB_{it} + \beta_{18} LOSS_{it} + \beta_{19} ADCH + \beta_{20} AFSZ_{it} \qquad (1)$$

Model 2: Interaction Effect

$$ADFEE_{it} = \beta_0 + \beta_1 APF_{it} + \beta_2 PFD_{it} + \beta_3 PACFD_{it} + \beta_4 BSZ_{it} + \beta_5 PBIND_{it} + \beta_6 BOM_{it} + \beta_7 ACSZ_{it} + \beta_8 PACINDit + \beta_9 ACAEX_{it} + \beta_{10} ACM_{it} + \beta_{11} LNCOSZ_{it} + \beta_{12} LEV_{it} + \beta_{13} PROF_{it} + \beta_{14} INV_{it} + \beta_{15} RCEV_{it} + \beta_{16} SQSUB_{it} + \beta_{17} PFSUB_{it} + \beta_{18} LOSS_{it} + \beta_{19} ADCH + \beta_{20} AFSZ_{it} + \beta_{21} APF{*}PFD_{it} + \beta_{22} APF{*}PACFD_{it} \qquad (2)$$

The following table shows the measurement variables for the above models to test the hypotheses developed by the study.

Table 1: Measurement Variables

Variable	Acronym	Measurement
Audit Fees	ADFEE	Natural log of audit fees.
Female Audit Partner	APF	1 if a partner auditor is female, 0 otherwise.
Board Female Director	PFD	Proportion of female directors on board.
Audit Committee Female Director	PACFD	Proportion of female directors on audit committee.
Board Size	BSZ	Number of directors on board.
Board Independence	PBIND	Proportion of independent directors on board.
Board Meetings	BOM	Number of board meetings held per year.
Audit Committee Size	ACSZ	Number of directors on audit committee.
Audit Committee Independence	PACIND	Proportion of independent directors on audit committee.
Audit Committee Accounting Expertise	ACAEX	Proportion of accounting expertise on audit committee.
Audit Committee Meetings	ACM	Number of audit committee meetings held per year.
Company Size	LNCOSZ	Natural log of company's total assets.
Leverage	LEV	Total debt to total assets.
Profitability	PROF	Net profit to total assets.
Inventory	INV	Inventory to total assets.
Receivables	RCEV	Receivables to total assets.
Subsidiaries	SQSUB	Square root of the number of company's subsidiaries.
Foreign Subsidiaries	PFSUB	Proportion of company's foreign subsidiaries to total company's subsidiaries.
Loss	LOSS	1 if company incurred loss in last three years, 0 otherwise.
Auditor Change	ADCH	1 if company changed its auditor in year, 0 otherwise.
Audit Firm Size	AFSZ	1 if a company audited by big-4 audit firm, 0 otherwise.

EMPIRICAL RESULTS

Descriptive Statistics

Tables 2 and 3 show the results of the descriptive statistics for the variables used in the study's analysis. Table 4 shows the mean differences between female and male audit partners, audit committee and directors.

Table 2: Descriptive Statistics

Variable	Mean	S.D.	25%	50%	75%
ADFEE (million)	0.73	1.10	0.15	0.29	0.72
ADFEE	12.76	1.17	11.94	12.57	13.49
APF	0.18	0.38	0	0	0
PFD	0.07	0.10	0	0	0.14
PACFD	0.05	0.13	0	0	0
BSZ	7.83	1.84	7	7	9
PBIND	0.51	0.14	0.40	0.50	0.60
BOM	6.88	3.40	5	6	8
ACSZ	3.68	0.77	3	4	4
PACIND	0.82	0.15	0.67	0.75	1
ACAEX	0.35	0.17	0.25	0.33	0.42
ACM	5.53	2.60	4	5	6
COSZ (million)	15000	42000	740	1600	5800
LNCOSZ	21.51	1.79	20.42	21.22	22.48
LEV	0.46	0.23	0.30	0.43	0.60
PROF	0.08	0.08	0.03	0.07	0.10
INV	0.08	0.10	0	0.03	0.12
RCEV	0.15	0.14	0.06	0.11	0.22
SUB (number)	30.91	32.92	7	22	43
SQSUB	4.81	2.78	2.65	4.69	6.56
FSUB (number)	6.15	10.52	0	2	7
PFSUB	0.16	0.16	0	0.11	0.25
LOSS	0.12	0.33	0	0	0
ADCH	0.07	0.26	0	0	0
ADFSZ	0.90	0.30	1	1	1

Table 3: Descriptive Statistics for APF, FD and ACFD Subsamples

Variable	APF N=75		FD N=182		ACFD N=72	
	Mean	Median	Mean	Median	Mean	Median
ADFEE	12.900	12.600	12.580	12.370	12.750	12.840
APF			0.160	0	0.210	0
PFD	0.080	0			0.190	0.170
PACFD	0.070	0	0.130	0		
BSZ	7.130	7	8.070	8	8.040	8
PBIND	0.530	0.500	0.530	0.500	0.570	0.570
BOM	5.570	5	7.200	6	8.060	7
ACSZ	3.600	3	3.630	4	3.760	4
PACIND	0.830	0.750	0.830	0.750	0.830	0.750
ACAEX	0.350	0.330	0.370	0.330	0.390	0.330
ACM	5.040	5	5.740	5	5.970	5
LNCOSZ	21.340	21.380	21.220	21	21.200	21.250
LEV	0.470	0.480	0.450	0.430	0.430	0.380
PROF	0.080	0.070	0.070	0.060	0.070	0.060
INV	0.080	0.020	0.050	0.020	0.050	0.020
RCEV	0.140	0.110	0.110	0.090	0.110	0.100
SQSUB	5.100	4.240	4.820	4.800	5.350	5.520
PFSUB	0.170	0.110	0.140	0.090	0.110	0.080
LOSS1	0.110	0	0.160	0	0.190	0
ACH	0.120	0	0.070	0	0.040	0
ADFSZ	1	1	0.860	1	0.860	1

Table 4: Audit Fee Mean Differences between Females and Males

Variable	N	Mean	T-Statistic	P-Value
Female Partner	75	12.904	1.145	0.253
Male Partner	345	12.733		
Female in Board	182	12.578	2.861	0.004***
Male in Board	238	12.906		
Female in Audit Committee	72	12.750	0.111	0.911
Male in Audit Committee	348	12.767		

$^{*}p < 0.05$, $^{***}p < 0.01$

Regressions Results

Table 5 presents the results of two models, model 1 for the direct effect of the gender of the audit partners, audit committee and director on audit fees and model 2 for the interaction effects between the female audit partner and female audit committee; and female audit partner and female directors. Based on the random effects panel data model with robust standard error, the results indicate that both models are significantly explained by the selected variables ($R^2 = 0.840$ for model 1 and $R^2 = 0.841$ for model 2).

Table 5: Results for Direct Effect and Interaction Effect

	Exp. Sign	(1)	(2)
APF	+	0.197^{***}	0.207^{***}
PFD	-	-0.788^{***}	-1.036^{***}
PACFD	+	0.342^{***}	0.501^{***}
BSZ	+	0.0384^{***}	0.041^{***}
PBIND	+	0.732^{***}	0.731^{***}
BOM	+	0.021^{***}	0.021^{***}
ACSZ	-	-0.065^{***}	-0.063^{***}
PACIND	+	0.479^{***}	0.480^{***}
ACAEX	+	0.0240	0.065
ACM	-	-0.007	-0.008
LNCOSZ	+	0.339^{***}	0.338^{***}
LEV	-	-0.0420^{***}	-0.0779^{***}
PROF	+	0.204	0.032
INV	+	0.549^{***}	0.612^{***}
RCEV	+	0.602^{***}	0.604^{***}
SQSUB	+	0.182^{***}	0.183^{***}
PFSUB	+	1.033^{***}	1.040^{***}
LOSS	-	-0.018	-0.019
ACH	-	-0.050	-0.054
ADFSZ	+	0.056	0.063
APF*PFD			1.644^{***}
APF*PACFD			-0.924^{***}
_cons		3.320^{***}	3.285^{***}
N		420	420
p-value		0.000	0.000
R^2		0.840	0.841

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

The results show that there is a positive and significant relationship between a female audit partner and audit fees. As expected, there is a positive and significant relationship between female audit committee and audit fees. Finally, the results show that female directors have a negative and significant relationship with audit fees.

When the interaction between the female directors and female audit partner; and the interaction between the female audit committee and female audit partner were entered, the adjusted R^2 increased to 0.841. Both interactions are significant, which indicates that the female audit partner moderates both relationships; that is, the relationship between female directors and audit fees and the relationship between female audit committee and audit fees. This is because when the audit fee negotiation involves females in both parties, they will be more competitive, which, in turn, causes a change in audit fees.

CONCLUSION

The objective of this paper was to investigate the effect of the gender of the audit partner, audit committee and director on the audit fee negotiations. By using the top 100 Malaysian companies listed on Bursa Malaysia, this study found that gender influenced the outcome of the negotiations; that is, audit fees.

Nevertheless, this paper has some limitations. The sample of this paper was designed based on the top 100 companies listed on Bursa Malaysia and only focused on non-financial companies. Other listed companies and financial companies were totally ignored. Therefore, the validation of the conclusions might not hold for financial companies and other companies outside these lists. Therefore, future research should examine the gender differences for different sample sizes and jurisdictions.

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An Empirical Investigation of the Effect of Job Satisfaction on Organizational Commitment and Quit Intention of Salespersons

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Abstract

This study examines the effects of job satisfaction on quit intention, which are mediated by organization commitment of salespersons in a department store. From the literature review, job satisfaction was found to be related to quit intention. Job satisfaction can be conceptualized as extrinsic and intrinsic job satisfaction. Furthermore, many studies have reported a significant association between organizational commitment and quit intentions. This study proposes a quantitative approach using a survey to investigate the inter-relationships among intrinsic/extrinsic job satisfaction, organizational commitment and quit intention. Fifty salespersons of the researched department store are required to complete a self-administered structured questionnaire. The result will be analyzed using SmartPLS 2.0. The causal relationships between Job Satisfaction and Organizational Commitment, Organizational Commitment and Quit intention, Job Satisfaction and Quit Intention will be established. In this study, the effects of Intrinsic and Extrinsic Job Satisfaction are analyzed to investigate its influence on Organizational Commitment and Quit Intention. This research result helps retail operators to formulate strategies relating to recruitment, employment terms, motivation and handling of leadership style for the reduction of staff turnover, and the enhancement of business productivity and profitability.

Keywords: Organizational Commitment, Job Satisfaction, Quit Intention

BACKGROUND / RATIONALE

Retail industry is one of the main pillars and high growth industry in Hong Kong. The sales amount growth in the retail industry was at 25% in 2011 comparing to that of 2010. Owing to the highly competitive business environment, the cost is high for the retailer. Major costs including rental (offices/outlets) cost, labour cost and product (via manufacturing/purchasing) cost. The cost margin of the industry is low. The requirement of a strong and stable work force is crucial to market players.

Owing to the rising of the economy, the unemployment is at a low level of 3.4% at Nov 2011 - Feb 2012 (from Department of Statistics, Hong Kong). The demand of labour in retail is intense in Hong Kong due to flourishing of the retail industry of all sizes/nature. In a manpower survey in Jan/2012 by Hong Kong Retail Management Association in retail industry, survey personnel comprised of 23% of the retail employees, there was a shortage of labour of 7,910 staff or 10% of the retail working population, or around 2 staff shortage per retail store. The way to recruit or to retain a salesperson is crucial to the profitability of every retail company. As the turnover rate is high in the retail stores, finding the turnover reasons will help the operators to formulate strategies relating to recruitment, training, employee relation, the planning of work schedule, work-life balance, motivation, working condition and environment for the reduction of staff turnover, and the enhancement of business productivity and profitability.

LITERATURE REVIEW

The current study will be conducted to examine the various organizational behavioural factors including Job Satisfaction and Organizational Commitment to quit intention of salespersons in one of the major department stores of its category in Hong Kong.

Job Satisfaction

Job satisfaction is considered as a staff's affective response to a working environment based on matching actual results with preferred results. Job satisfaction can be regarded as a many-sided construct that embraces staff feelings about a range of both intrinsic and extrinsic job factors. Job satisfaction can be defined in number of ways, including extrinsic/ intrinsic and common satisfaction. Job satisfaction can be featured as a responsive state subsequent from the evaluation of one's job or job experiences and developed by various intrinsic and extrinsic factors. Segmenting satisfaction with the job into components relating to the employee, relating to the nature of the job itself, and those relating to the job, but external to it, is an approach incorporated into some of the most widely studied models of satisfaction (Pepe, 2010).

Extrinsic Job Satisfaction

It can be considered to those features external to the job including pay, compensation, recognition, company policies, and supervision-human relations.

Intrinsic Job Satisfaction

It refers to the affective responses of staff to the job and addresses the key characteristics of the job itself, such as, variety, autonomy, creativity, challenge, achievement, opportunity to use one's skill, and so forth.

Organizational Commitment

The following statements provide an overview of Organizational Commitment:

- An approach or direction that connects the individuality of oneself to the organization/group.
- From (Meyer and Allen, 1991), "the commitment construct includes elements of desire, need, and obligation which are represented in the three-components of affective, continuance, and normative organizational commitment."

1. **Affective Organizational Commitment**
   - It is concerned with employees' emotional attachment to, identification with, and involvement in the organization, and their intention to stay due to "want to do so".

2. **Continuance Organizational Commitment**
   - It is concerned with employees' awareness of the costs associated with leaving the organization, and their intention to stay due to "need to do so".
   - It is the main reason in staying with one's organization because they are required to do so.

3. **Normative Organizational Commitment**
   - It is concerned with employees' belief of obligation, and their intention to stay due to "ought to do so".

Affective commitment, which is regarded as the emotional state, fit in and commitment to the establishment, is believed to be a more significant type of organizational commitment than that of others (Meyer and Allen, 1991). Staff with greater affective commitment to one's job, implies higher level of normative commitments of their job (Cohen, 1996).

Quit Intention

Turnover may occur voluntarily or involuntarily. Involuntary turnover happens when a staff is dismissed or required to leave the organization which is anticipated and well-planned by employer before execution. On the contrary, voluntary turnover is initiated by staff. The current research focuses on voluntary turnover, which frequently creates disruption in the service delivery system. The relationship between employee turnover and its consequence has been well documented and reveals that high employee turnover rates can hurt both organizations and their remaining employees in terms of work performance and job disruption (Price, 1977; Scott et al., 1999). Majority of scholars believe that the plan to stay/quit a particular organization is the last mental process of voluntary turnover (Steel and Ovalle, 1984). There are limited turnover studies in the retail industry that are conducted in Hong Kong.

Factors Affecting Quit Intention

Many studies have reported a significant association between organizational commitment and quit intentions (Mowday et al., 1979). Molbley et al. (1979) proposed that demographic factors, work environment and job satisfaction affect turnover via turnover intention. They have hypothesized that job satisfaction is a major original cause of staff leave.

Job Satisfaction and Organizational Commitment

The connection between job satisfaction and organizational commitment (OC) is widely recognized in sales and marketing area. Major scholars agree that job satisfaction is a cause to organizational commitment (Vandenberg and Lance, 1992). The primary principle that affects organizational commitment is the exchange process (Stevens et. al., 1978). In other words, through the evaluation of costs and benefits, individual needs and desires are satisfied and results in a positive affective state towards the organization, work related aspects and working environments (Boles et al., 2007).

Related Framework by Renowned Scholars

1. "There is a connection between Job Satisfaction and Organizational Commitment Antecedents, and causal relationship between Organizational Commitment and Turnover Intention" (from "Correlates and Consequences of Three dimension of organizational Commitment" by (Meyer et al., 2002)).
2. "There is a causal relationship between Job Satisfaction, Organizational Commitment and Intent to leave" (from "The Mediating Effects of Multidimensional Commitment on Job Satisfaction and Intent to leave" by (Clugston, 2000)).

Research Gap

There are limited studies relating to the influence of Intrinsic and Extrinsic Job Satisfaction on Quit intention. Very few studies have investigated the mediating effect of Affective Commitment on quit intention, especially for salespersons in a fast-paced Asian Country like Hong Kong. The relative importance of Extrinsic and Intrinsic Job Satisfaction to Quit Intention via Affective Commitment can be tested and identified to help market players in that specific industry. Practitioners can formulate their Human Resources strategies to lessen their staff turnover via reducing the quit intention of their staff accordingly.

AIMS / OBJECTIVES

As Job Satisfaction and Organizational Commitment are two broad areas related to turnover intention, the current research will try to find out the answers for the following questions:

1. To find out the relationship among Job Satisfaction, Organization Commitment and Quit Intention of salespersons of the researched department store.
2. To investigate the causal relation between Intrinsic / Extrinsic Job Satisfaction and Affective Organizational Commitment of the researched department store.
3. To investigate the causal relation between Affective Organizational Commitment and Quit Intention of salespersons.
4. To investigate the causal relation between Intrinsic/Extrinsic Job Satisfaction and Quit Intention.

The scope of the study is restricted to the niche market of the Hong Kong retail industry, because of the following reasons:

(1) Retail industry is one of the four fundamental industries of Hong Kong that suffers particularly from staff turnover due to the nature of high competitiveness in business and labour market with requirements of good customer services.

(2) Due to the great diversification of merchandises and brands, there were around 65,046 retail companies and 264,805 employees in Hong Kong in Jun 2013 reported by the Hong Kong Census & Statistics Department. A study that is conducted with all companies with different merchandises in one survey seems not realistic. Therefore, this study is based on a selected company in the niche market of the retail industry in Hong Kong.

(3) As jewelry, watch and valuable gifts sales comprise of the largest portion of the retail sales revenue in Hong Kong (around 25% of total sales revenue in July 2013 surveyed by the Hong Kong Census & Statistics Department), survey samples taken from the frontline staff of luxury department store (there are around four luxury department stores in Hong Kong with these high-end merchandises) is appropriate in terms of importance to Hong Kong economy and manageable targeted population.

The ability of an industry to retain talented individuals influences its future direction, leadership, and growth. Today employee turnover is evident at all levels in organizations, and as individuals, voluntarily move on to other firms or into early retirement the cost of turnover becomes an issue. In addition to lost experience and organizational knowledge, recruiting, replacing, and retraining employees can be fiscally expensive and time intensive.

Finally, the study provides recommendations to help practitioners make informed decisions about building commitment and extrinsic/intrinsic motivating programs for personnel in similar organization in the niche market retail industry.

RESEARCH FRAMEWORK AND HYPOTHESES

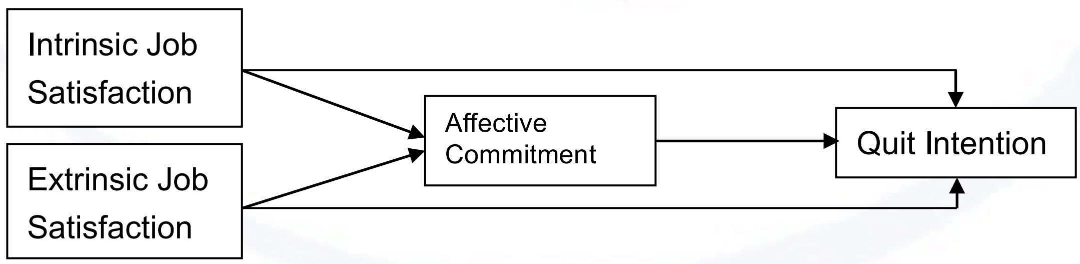

Figure 1. Research Framework

In the research framework (see Figure 1), it can be seen that Intrinsic Job Satisfaction and Extrinsic Job Satisfaction have causal relationships with Quit Intention, which are mediated by Affective Commitment.

The investigation of the factors that influence Quit Intention, Job Satisfaction and Organizational Commitment is a major area that is widely recognized by scholars (Fong and Cheung, 2013, Stevens et al., 1978). Intrinsic Job Satisfaction relates to the affective responses of staff to the job. Therefore, it should have positive relationship with Affective Organization Commitment, and it can directly influence Quit Intention.

H1: Intrinsic Job Satisfaction will positively influence Affective Commitment
H2: Intrinsic Job Satisfaction will directly influence Quit Intention

For Extrinsic Job Satisfaction, it relates to those features external to the job (including pay, compensation, recognition), and should have relationships with an attitude that one comes to learn of the association with the company/organization in terms of aligning objectives. It can also directly influence Quit Intention.

H3: Extrinsic Job Satisfaction will positively influence Affective Commitment
H4: Extrinsic Job Satisfaction will directly influence Quit Intention

Affective Commitment is strong when someone intends to serve the company. It can negatively influence the Quit Intention. Therefore, the following hypothesis is proposed:

H5: Affective Commitment will negatively influence Quit Intention

RESEARCH DESIGN

This study will utilize a quantitative approach and a cross-sectional investigation approach to test the hypotheses. This study employs a questionnaire developed based on previous research to collect the desired information. Data are collected to answer the research questions and provide information on demographic characteristics.

RESEARCH METHOD

The population for this study will be the salespersons of a luxury department store in Hong Kong. As senior management of the researched company, the researcher can obtain a complete list of names and positions of the members from the HR office of the researched company. There are around 100 headcounts of salespersons in the researched company. A sample of 100 salespersons will be used to investigate the factors affecting the quit intention of salespersons. The survey is conducted and facilitated by a newly recruited staff of the company to avoid the possibility of undue influence to the survey by the researcher if it is carried out personally by the researcher.

RESEARCH INSTRUMENT AND DATA COLLECTION

This research will use an anonymous self-administrated questionnaire sent to the salespersons of the researched company for the specified constructs, together with the demographic and employment information by the newly recruited staff, aided with a sealable plain envelope to increase the privacy of the completed questionnaire.

PROJECTED RESULTS

The data collected will be entered into a computer and analyzed using SPSS and SmartPLS 2.0. Standard statistical procedures, including descriptive and inferential statistics, such as frequency, means, standard deviation, Chi square test, Independent Sample t-test, factor analysis, One-Way Analysis of Variances (ANOVA), Multiple Regression and Partial Least Squares Analysis will be used to analyze the data. The relationships between the constructs in the research questions can be figured out by the result of the statistical tools and relevant human resources strategies can be formulated. As planned, the relative importance of Extrinsic and Intrinsic Job Satisfaction to Quit Intention that are mediated by Affective Commitment can be evaluated. The results will help market players in the retail industry, department store in particular in the fast-paced Asian countries, like Hong Kong, to figure out their retention policies and strategies for lowering their turnover rate of salesperson, via lowering the quit intention of the salespersons.

SUMMARY

This study examines the job satisfaction and quit intention mediated by organization commitment of salespersons using survey data from a department store in Hong Kong. From the literature review, job satisfaction was found to be related to quit intention. Job satisfaction can be conceptualized as extrinsic and intrinsic job satisfaction. Furthermore, many studies reported a significant association between organizational commitment, affective organizational commitment in particular, and quit intentions. The casual effect of job satisfaction and quit intention mediated by organizational commitment will then hypothesized. A quantitative research using survey research design will be used to investigate the inter-relationship of intrinsic/extrinsic job satisfaction, organizational commitment and quit intention. Fifty salespersons of the research department store are required to fill a self-administered structured questionnaire. The result is analyzed using SmartPLS 2.0. The results will help market players in the retail industry, department store in particular in the fast-paced Asian countries, like Hong Kong, to figure out their retention policies and strategies for lowering their turnover rate of salesperson, via lowering the quit intention of the salespersons in the area(s) of focuses, like extrinsic factors (pay, compensation, recognition, company policies and supervision-human relations), intrinsic factors (include variety, autonomy, creativity, challenge, achievement of the job.) or issues/factors leading to affective organizational commitment.

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The Critical Mechanisms Affecting the Quality of Product Knowledge in Multilevel Franchise-Like Networks

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Abstract

This study describes the investigation of franchising relationship networks with special attention to knowledge management aspects. Franchising chain plays a prominent role in the marketing environment and being is adopted in a variety of business sectors. Product knowledge in franchising chains is based on individual connections and knowledge sharing. Relationship networks are considered as a means to deal with resource scarcity and mechanisms to align incentive knowledge exchange between the franchisees. This study attempts to understand the mechanisms that might underlie within knowledge process and sustainability. From this perspective, an experimental study was conducted to explore the potential impact of the key factors affecting relationship networks and the knowledge exchange mechanisms among key actors. This study proposes a new and unique franchise-like model for the development of product knowledge in multilevel franchise-like networks. The investigation is conducted in Hong Kong context as a testing sector, which is Chinese-based with franchises selected from a multilevel franchise-like networks.

Keywords: Franchising, Knowledge Management, Knowledge Quality, Organizational Learning, Product Knowledge

1. Introduction

Product knowledge plays a prominent role in franchise-like business and it is particularly important to the 'Business Ownership Model' which is a new business model developed in 2008. The acquisition and understanding of product information, which is the sharing among franchisees of know-what, know-how and know-why of products, has immediate implications for consumers' appreciation (word of mouth) and direct impact on customer satisfaction. However, product knowledge may be distorted during transmission between different people and ultimately affect knowledge accuracy.

The literature on franchising business mainly originates from the West. Though China's market is huge with a population of 14 billion, there is limited literature discussing franchise business in the Chinese context, *e.g.* retail business entering the China market (CCFA, 2006), restaurant services (Alon & Bain, 2005) and hotel industries (Xiaoa, Neillb & Wang, 2008) but very rarely does it explore the newly developed Business Ownership model in the knowledge management (KM) context. Therefore, it is interesting to explore and understand the KM of franchising business within Chinese culture, and to develop an efficient knowledge collaborating model for the new Business Ownership model in the Chinese market.

This study is to be carried out to explore organizational learning activities and considerations of the new franchise-like Business Ownership Model, in order to determine the factors affecting the knowledge management mechanism to preserve accuracy and correctness of product knowledge during knowledge transmission. The research output will enable the better understanding of KM practices and make possible contributions by refining the current KM models by taking into consideration a new business networked environment in the China context. Through the study, which will entail testing various KM models, the critical activities as well as the key considerations that support and facilitate the learning actions within the "Business Ownership Model" can be identified as key factors that ultimately allow an effective implementation framework for the quality assurance of knowledge.

This research aims at investigating organizational learning in franchising networks by developing a product knowledge management model for franchise-like business. This study will establish a proposed model for knowledge transfer and exchange activities, in order to ensure the improvement of knowledge quality by studying knowledge dissemination mechanisms, and to achieve customer satisfaction. With this overall aim, the study objectives are (*i*) to explore the key process and influential factors for product knowledge dissemination; (*ii*) to identify key knowledge sources; (*iii*) to identify the deficiencies of knowledge actions, and determine the patterns of interaction; (*iv*) to construct the knowledge action models and establish the framework for knowledge dissemination; and (*v*) to measure the knowledge process models and validate product knowledge quality and customer satisfaction.

This study is based on the following research question:
What is the most effective mechanism for product knowledge transfer, exchange, and learning within the "Business Ownership Model" for effective knowledge transmission, and how can it be implemented to improve customer satisfaction?

2. Problem Identification

Franchisees and consumers come into contact with each other for particular purposes and thus have a common objective – a good product. Product knowledge is the core element for understanding of a product and the experience of using it. Some products may require special attention, say health or beauty products because they contain medicines or drugs which can affect health and so emphasizing know-what, know-how and know-why are important. Generally, the Franchisor must provide sufficient information and training for franchisees to understand their products. However, the content of this kind of product knowledge could be changed or distorted during transmission when acquired and understood by individuals due to various factors: information quality, franchise operation; and business policies, especially when the organization structure is expanding rapidly and becoming huge resulting in difficulty in managing the sources of product knowledge in networked environments. As information is part of the product offering and quality of product information or knowledge deteriorates during its dissemination, it will seriously affect customer satisfaction. The distortion of transmitted product knowledge creates misunderstanding and misconception, ultimately generating authenticity issues in the circulation of damaging knowledge, which leads to product incredibility in the market. This is harmful to "word of mouth" aspects and the reputation of the companies in the franchising networks.

The root causes of the distortion arise from knowledge activities and learning problems in regard to individual and organizational aspects. Therefore, this research will examine various KM components related to organizational behaviour. It aims at tackling collaborative learning and interactive activities for organizational learning, and focuses on the establishment of an effective KM model developed with reference to the Business Ownership model.

3. Background

The Business Ownership model is a business model operating in between franchising business and the direct sale model with free store opportunities for franchisees not only helps to realize their entrepreneurial dream, but also helps to involve relationship networks as franchisors participate and contribute a lot of resources to business network building. The Business Ownership model is unique and new so there are limited studies that describe full implementations, particularly within the Chinese territory. This research will be carried out in relation to a business owner group called KTG Global, a business partner of Cosway (HK) Limited, with a Hong Kong context, and is Chinese-based. This division has over 30 stores and over 900 business owners in Hong Kong and China, so is the most suitable organization for investigating product knowledge transmission and the relationship network issues.

Franchise chains are the connections on a continuum with endpoints and are described as clusters of franchisees. With the Business Ownership model, the Business Owners in the cluster are free to explicitly delineate their responsibilities and roles (franchisors or franchisees) and are flexible in nature in accordance with the norms and relationship network dimension. More likely, knowledge transfer is facilitated by the Business Owner and flows from and to all Business Owners within the network. This view of "relational exchange continuum" (Paswan & Wittmann, 2009) provides a foundational view for better understanding of knowledge exchange among franchise chains.

KM actions have been fused with the strategy, personal goals, and practices within the interaction of people and it is recognized as a human process (Milton, 2005), and such knowledge generated is embedded with much personal character (Polanyi, 1958). For this reason, the knowledge-in-use model provides a good starting point for analysis, and focuses on learning process detection and correcting errors with an interplay between actions and interactions among individuals (Business Owners) and organizations (clusters or relationship networks), through double-loop learning (a continuous inquiry process) to inquire, test, compare and adjust his/her knowledge-in-use with critical reflection and restructuring of one setting and a new setting. Nersessian (2002) aims at bridging the discrepancy of working memory and long-term memory to support reasoning and problem-solving conceived as cognitive structures drawing on the combination of both (long-term and short-term memory), and reveals that the knowledge process involves a degree of abstraction, which is akin to the knowledge-in-use model. Argyris and Schon (1974) argue that what people say, the 'espoused theory', is different from what they do, the 'theory in use' when someone 'acts'. Abel et al. (1998) contributed collective or shared theories to identify and support a shared understanding among relevant stakeholders to enhance the collective decision-making process. It is a form of recognition that stems from a growing collective focus, and involves KM in three factors: reasoning, causal dynamics, and learning to cognition at the individual level from a range of scales to group level and further to societal level. There are two critical elements that affect the factors of the knowledge-in-use model: Collaborative model and Longitudinal causal model.

Organizational learning within franchise-like organizations is a form of group interaction with dialogue and skilful discussions to transform the collective information/knowledge and mobilize individuals' theories. The Collaborative model plays a critical role in this. It is the combination of the 'Guanxi' model (Krauße, 2010) and Collaborative selling (Alessandra & Berrera, 1993) for the purpose of developing trust and respect among Business Owners, franchise chains and consumers to maintain long-term relationships as knowledge sources and resources. According to Krauße (2010), the 'Guanxi' model is a relationship network and a particularly common practice in the Chinese cultural context. It is a patronage relationship and diffused relationship which is often long-lasting and also determined by the rules of long-term allegiance (Krauße, 2010: pp. 7-21). Collaborative selling is a model of forming 'partnerships' in which prospects play a role in the search for the best solution for an ongoing relationship and regular communication about delivery dates, training, and other pertinent matters (Alessandra & Berrera, 1993).

The Longitudinal causal model (Bontis & Serenko, 2009) is an inquiry-based learning model created to learn from collective knowledge to understand the experience of two or more individuals (group level of franchisees or societal level of consumers) to revise their 'patterns of organizing' in positive ways.

The conceptual framework is formulated with reference to the knowledge-in-use theory that interlinks with the Collaboration model and Longitudinal causal model. Therefore, this study creates a scenario similar to the business setting of the Business Ownership Model. Summarizing the key considerations on knowledge transfer for organizational learning within a networked environment and including relevant factors collectively to form an integrated view, a research model is proposed for this study as follows (see Figure 1):

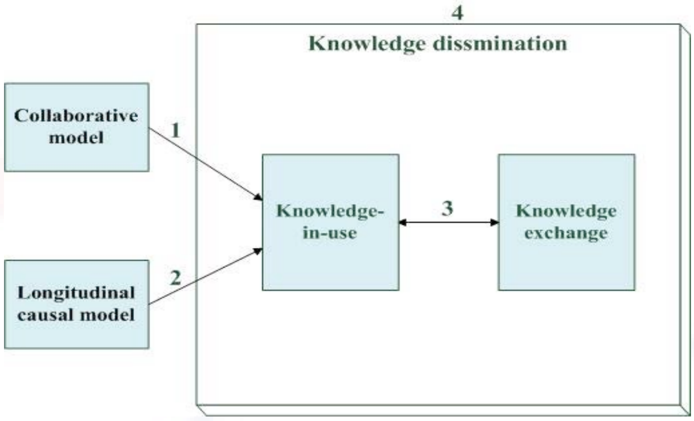

Figure 1: Proposed Research Model

4. Research Model

Knowledge-in-use model specification concerns product knowledge in reality and the functional aspects. Generally, it is believed that the construction of a knowledge-in-use model is dependent on other related elements.

1. To understand the Collaborative model as part of knowledge-in-use model, which is relevant and important for achieving goals and values. The Collaborative model exhibits a higher interaction to affect current information/knowledge more directly;
2. To understand the Longitudinal causal model, which is essential for product information/knowledge and important for improving the satisfaction of knowledge-in-use.
3. To understand knowledge exchange, which is viewed as information/knowledge sources and resources, and is important and benefitial for providing contributions to knowledge-in-use.
4. To extend knowledge transmission as a knowledge transfer process, which is relevant and important for product knowledge dissemination.

5. Validation

To understand the effectiveness and performance of the models, which will be implemented in this study, the identification and measurement of the satisfaction of stakeholders (franchises and consumers) are important. They are also used to investigate the extent to which the KM area influences effectiveness in socio-dimensions and helps to understand the collaborative actions, the communications of information/knowledge and the processes involved in product knowledge management.

6. Research methodology

This research will be based on the positivism research philosophy. The case study and action research approaches will be chosen to address the research objectives. Case study can be incorporated with action research to deal with the research problem. A cross-sectional study will be carried out to cover shops in Hong Kong and China. Therefore, the "one-shot" characteristic will be adopted in qualitative interviews and the data gathered will be used for phenomenon identification and model construction followed by a questionnaire survey through electronic mail distribution. A longitudinal study will be conducted with two questionnaires to test the changed and refined the models using the action research method. A third questionnaire will be carried out to test the effectiveness of the models by comparing with the indicators of prior cycles and measuring the effect on the improvement of knowledge quality. This study will mainly follow a deductive approach. It will contribute to the theoretical development, concept development and improvement of knowledge management practices.

7. Sampling Method and Sampling Technique

The simple random sampling approach will be adopted in this study as non-probability samples may give misleading results. The sampling frame will be Business Owners in Hong Kong and China and the selection will be based upon the Business Owner list. The sample will be based on 30 Business Owners for interviews (10 groups will be divided) and 100 Business Owners for conducting a survey using questionnaires.

8. Data Collection Methods and Data Analysis

Data will be collected using a mixed methods approach as the research involves complex issue involving social, behavioural and human factors exhibited in franchise chains and relationship network environments, and the knowledge process sector. The phenomenon can be addressed with open-ended and semi-structured group interviews to explore and formulate cause indication, and latent constructs. The survey that is conducted using a structured questionnaire will be used to examine the cause indication and latent constructs. Therefore, the questionnaire will be designed with five segments:- Collaborative model, Longitudinal causal model, Knowledge-in-use, Knowledge exchange and Knowledge dissemination. The design of questions will be a seven-point Likert scale. Both instruments will include brief descriptions and pilot testing with division leaders will be performed to test the initial version of instruments regarding the overall style, clarity, and the organization with an enclosed comment sheet for refinement, extension, and correction.

Some qualifiers will be used for the conducting data analysis. Interview data will be presented with thematic networks and coding with content analysis to formulate and construct models and frameworks. Questionnaire data will be used to explain the empirical evidence through statistical means, standard deviations and regression. With the adoption of reflective measures, it will be used for measuring the indicators of knowledge quality and customer satisfaction, caused and formed by the interviews' outcome.

9. Summary

Understanding the relationship between organizational learning and product knowledge quality is important for franchise business growth, as they could assist in knowledge quality and valuable product knowledge provided within franchise networks. The KM model focuses on creating the characteristics of the unique franchise-like business model. With regard to this special environment, the learning process is redefined to include the Chinese relationship context. Customer satisfaction rate is the suggested tool for knowledge quality evaluation. The use of the KM model, however, is to reduce the effect of unclearly defined dimensions arising from extreme responses. This study will use a case study and action research mixed methods. Interviews will be conducted first to identify the interesting events and themes. A survey will be launched sequentially to investigate the findings from the interviews in form of three questionnaires to evaluate the improvement in practice.

The research will refine the professional practices of knowledge dissemination and transfer in a network environment. Through this study, the development of an effective implementation framework will be used to fill the existing gap for KM in the "Business Owners Model" operating environment. The research output will also provide insights to refine the current theories on knowledge management, by considering some of the key issues of Eastern culture particularly 'Guanxi' in the HK/China context.

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The perception of hiring managers on Ethical values: A study of hiring managers from multinational companies in Penang, Malaysia.

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Abstract
People generally see ethics as giving us a standpoint from which to decide what is right and what is wrong and what we ought to do or ought not to do. According to Rowson (2006) ethics is not the only guidance to judge whether the behavior is to be acceptable or unaccpetable but also to consider from the perspectives of law, social convention, professional codes of conducts, religious beliefs, politics and practicality. This research study the relationship of demographic factors such as age, gender, ethnic, education, marital status, managerial/employment level and employer's country of origin with the perception of hiring managers on ethical values. This exploratory study using a set of questionnaire in order to collect the data. The collected date were analysed using the Statistical Package for Science (SPSS) version 16. The analyses were conducted for descriptive, factor, reliability, correlation and regression. Seven hypotheses were tested with the respondents received from hiring managers who are from multinational companies in Penang. The results indicated that age, marital status, managerial/employment level and employer's country of origin had significant relationship with the perception of hiring managers on ethical values. On the other hand, gender, ethnic and education did not showed significant relationship with the perception of hiring managers on ethical values. The outcome of this study can be used to recommend the importance of ethical values as an agent of organisation sustainability.

Keywords: Ethics, hiring manager, multinational companies, sustainability, Penang, Malaysia

INTRODUCTION

People generally see ethics as giving us a standpoint from which to decide what is right and what is wrong and what we ought to do or ought not to do. In organization, ethics is very important nowadays and many companies initiated their own codes of conducts. However, the first step for the organization is to implement correct selection process so that they will select good prospective employees. This study focuses on hiring managers' perception of ethics as they are the one that have authority to hire or not to hire the prospective employees to the organization. According to Rowson (2006) ethics is not the only guidance to judge whether the behavior is to be acceptable or unacceptable but also to consider from the perspectives of law, social convention, professional codes of conducts, religious beliefs, politics and practicality. While, Ghillyer (2012) defined ethics as the way we want to live our lives in accordance to 'right' or 'wrong' principles which affect how people precieve and behave towards us and how we percieve and behave to others. Further, Boathright (2014) stressed that business ethics is inevitable element in many business decision which affect the organisation success as a whole.

As per online survey conducted by Sunday Star, 14 March 2010, about 24.2 percentage out of 1,678 respondents were willing to sacrifice the ethics as long as they can become millionaires. Another 32.8 percentage were not sure but the tendency to ignore ethics is quite high, at total of 57 percentage.

The ethical issue in Malaysia would be the case of conglomerate Sime Darby Bhd. that remains unanswered, which finally admitted its energy and utilities division has suffered massive cost overruns (Kuppusamy, 2010). The CEO has to be asked to leave but why did the board of directors had been slow in getting the clues on this big mess that was taking place at the troubled division since few years back? Is it involve any malpractices? This is still under investigation by Public Accounts Committee (PAC).

KPMG Malaysia also published its Fraud Survey Report 2009 (Hardy, 2010) alerted on the rising trend in financial reporting fraud. With many cases reported on fraud and scandals, ethics become the word on many people's lip at the moment.

Hiring the right employee who carries the high value system is important to reduce the risk and dishonesty. The selection criteria must consider future performance and it has to be 'fit' between candidates and organization and according to O'Meara and Petzall (2009) it must be related to the personalities, beliefs and value-system of the candidates. As cited by Shwiff (2007) former Dial Corporation CEO Herb Baum wanted candidates with strong values and character as well as good credentials and he mentioned that substance and strong character determine sustainability. Same to Jack Welch who led General Electric as CEO for 21 years and spent about half his time hiring and coaching his staff, to value integrity above all else (Collins, 2005).

The study of hiring managers' perception on ethical values is very important because the study need to examine the perception first and make the conclusion before we can talk about managing the ethical issues.

LITERATURE REVIEW

As per Malaysia National Integrity Plan (2004) the transformation towards a developed nation is not solely based on economic and technological progress. It also needs progress in social, cultural, intellectual and spiritual fields. To achieve these, the enhancement of ethics and integrity to ensure that they become part of the society's culture is absolutely necessary.

According to Connock and John (1995) as cited in Orme et al. (2002: 185), ethics is about fairness, and deciding what is right or wrong, about defining practices and rules which underpin responsible conduct between individuals and groups. Another definition of ethics by McNutt and Batho (2005) said ethics has generally concerned with what is good and bad, right and wrong in the decision making. Ethical issues are relevant in decision making in every aspect of business i.e. human resources, marketing, operations, finance etc. As per human resources perspective, the decision making of whether to hire or not to hire should consider ethical values of candidates or prospective employees.

As per report by World Economic Forum (2010) opinion poll on ethical practices conducted by World Economic Forum via Facebook reached over 130,000 respondents from France, Germany, India, Indonesia, Israel, Mexico, Saudi Arabia, South Africa, Turkey and the United States. Over two third of the respondents believed that the current economic crisis is also a crisis of ethics and values. The majority of respondents are under 30 years old and this opinion survey showed how they see the role of values in economy. About half of the respondents' feedback suggested that businesses should equally responsible to their shareholders, their employees, their clients and customers.

Studies in Demographics

Al-Shaikh (2002) mentioned that age and experience have influence in the ethical orientation. Further, Cennamo (2008) found that the generational or age has positive relationship with goals, expectations and work values. On top of that, Babakus et al. (2004: 260) revealed that younger respondents tend to view unethical behavior as more acceptable and this statement is in agreement with Quazi (2003) that age is a strong predictor of ethical attitudes. However, Callan (1992), Izraeli (1988) and Stevens (1984) as quoted by Marta, Singhapakdi, Attia and Vitell (2002) indicated that age factor to be insignificant relationship. They also mentioned that the correlation research on the relationship between ethics and age provides surprisingly mixed results.

In addition, in term of gender, Loo (2003) found that women would have more ethical responses than men and this statement was supported by Babakus et al. (2004: 260) whereby women have high tendency towards high ethical perception compared to men. Wickramasinghe and De Zoyza (2008) mentioned that gender had significant relationship with the competencies.

Ethnic relates to culture as to how the world is perceived and organized by a group of people. According to Hofstede (1984) as cited by Sadri and Rahmatian (2003) culture defines as “collective programming of the mind” and suggests that culture affects work-related values, attitudes and behaviors. Each culture includes a common code or language, a common heritage, history, social organization, set of norms, knowledge, attitudes, values, beliefs, objects, and patterns of perception that are accepted (implicitly and/or explicitly) by a particular group.

In term of education level, Rest and Thomas (1985) as quoted by Quazi (2003: 824) said education level is also found to be a strong determinant in moral reasoning.

While, Wickramasinghe et al. (2008: 337) found marital status have significant main effects in predicting competency needs. This explained that marital status had relationships with the competency. Married men or women always perceived have more responsibilities compare to single men or women. Swaidan (2003) as cited by Peppas (2006: 95) also mentioned about the significant relationship marital status with consumer ethics.

In the aspect of managerial level or employment level, Quazi et al. (2003: 822) emphasized that the higher job title was significantly related to ethical behavior, however Babakus et al. (2004: 255) found those with lower level in national sample of USA showed greater ethical concern for the 27 ethical belief statements.

Hiring Manager

Hiring Managers are those that can make a decision to hire or not to hire of their staff. According to Manshor, Jusoh and Simun (2002) hiring managers’ role becomes critical where they must able to hire the right person for the right job. This is because an organization’s success depends largely on its employees. Liker and Hoseus (2008) mentioned that every hiring decision should be taken seriously and hiring the right person, in the right amount, in the right form and at the right time is very important. It must be in a proper process for hiring process and hiring decision. With that, the selection criteria are the important to the hiring manager. Selection criteria are one outcome of the process of job analysis. According to De Ciere and Kramar (2005) as cited in O’Meara et al. (2009: 253), job analysis is the building block of every human resource activity.

According to Wang et al. (2000: 73), if the screening of potential candidates have not been done properly and effectively, the hiring manager has a tendency to make a deadly hiring mistakes such as hiring too quickly, hiring by ‘gut’ feelings, hiring because of impeccable references, hiring because former employers had no criticism, hiring because the applicant ‘aced’ the interview, hiring because of an impressive resume and hiring just because applicant come highly recommended. Actually ethics is one of the values and it is very important for the sustainable organization. Organization should focus on hiring people whose values are aligned with those of the organization. According to McGuire, Garavan, Saha and O’Donnell (2006) values are difficult to define because it is share similar characteristics with concepts such as attitudes, preferences and viewpoints.

METHODOLOGY

Research Design

This research is exploratory research in nature since none of research found on assessing perception of hiring managers on ethical values in Malaysia. Survey method was the basic design for this study. The nature of this study is descriptive research since it is undertaken to ascertain and describe the variables that lead to selection of ethical candidates. Data were collected from the drawn sample and statistically processed. The population of this study was the hiring managers in Penang. Quantitative data were gathered through a convenience sample survey research. The questionnaire comprised of two sections i.e. Section A – Demographic Data and Section B – Personal Ethics Assessment. Section A consisted nine questions and Section B with twelve questions.

The total of 200 questionnaires were administered and distributed to the respondents by the researcher himself either through email or face to face with hard-copy distribution. A total of 107 questionnaires were usable representing about 53.5 percent response rate. A few data analysis techniques such as descriptive analysis, factor analysis, multiple regression analysis, Cronbach's Alpha, and other techniques were utilized to test on the relevancy and reliability of the data collected.

RESULTS

Profile of Respondents

Total 107 valid respondents gathered. Out of that, the highest respondent came from those with age between 31 – 40 years old (47.7 percent), 41 – 50 years old with 29 percent, 20 – 30

with 18.7 percent and more than or equal 51 years old represent 4.7 percent. Male respondents are higher than female with 70 male (65.4 percent) and female 37 respondents (34.6 percent). Malay respondents represent 49.5 percent whereas Chinese, India and others represent 27.1 percent, 15.9 percent and 7.5 percent respectively. For highest education, the highest respondent actually those with Bachelor's Degree with 71 respondents (66.4 percent). Married respondents were 79.4 percent, single status with 19.6 percent whereas divorced only 1 respondent represented 0.9 percent of total respondents. For the managerial/employment level, upper management represented 23.4 percent whereas middle management and lower management with 33.6 percent and 35.5 percent respectively. Others respondent for managerial/employment level only with 7.5 percent. Respondents from western were the highest responded with 60.7 percent whereas eastern respondents only 39.3 percent.

Correlation Analysis

Four independent variables are significantly correlated. They are age, marital status managerial/employment level and employer's country of origin. The highest correlated is managerial/employment level with -.37. The intercorrelation is ranging from .204 to -.37. Gender, ethnics and education are not significantly correlated.

Regression Analysis

Results of the analyses

Hypothesis	Statement of Hypothesis	Supported?
H1	There is a significant relationship between Age and the Perception of Hiring Managers on Ethical Values	**Yes**
H2	There is a significant relationship between Gender and the Perception of Hiring Mangers on Ethical Values	No
H3	There is a significant relationship between Ethnic and the Perception of Hiring Managers on Ethical Values	No
H4	There is a significant relationship between Education and the Perception of Hiring Managers on Ethical Values	No
H5	There is a significant relationship between Marital Status and the Perception of Hiring Managers on Ethical Values	**Yes**
H6	There is a significant relationship between Managerial/Employment level and the Perception of Hiring Managers on Ethical Values	**Yes**
H7	There is a significant relationship between Employer's Country of Origin and the Perception of Hiring Managers on Ethical Values	**Yes**

Based on the analysis, found that only age, marital status, managerial/employment level and employer's country of origin had significant relationship with the perception of hiring managers on ethical values. Gender, ethnic and education are not significant relationships.

DISCUSSION AND CONCLUSION

This study explored how the demographic factors such as age, gender, ethnic, education, marital status, managerial/employment level and employer's country of origin can influence the perception of the importance of ethical values. From the analyses, only age, marital status, managerial/employment level and employer's country of origin had significant relationship with the perception of ethical values.

From the analyses, it is found that the finding on age contribution was aligned with what were found by Moyes et al. (2006), Al-Shaikh (2002), Cennamo (2008) and Quazi (2003) even Callan (1992), Izraeli (1988) and Stevens (1984) had different result.

On the marital status influence of the perception, the finding on married person had better perception on ethical values was correlated with what were found by Wickramasinghe et al. (2008) and Peppas (2006).

Regarding managerial/employment level, the finding was also same with Quazi (2003) that the higher the level of employees, the higher the perception towards the ethical values.

This finding on employer's country of origin validate that what were found by Vitel and Munchy (1992) and Al-Shaikh (2002) that employer's country of origin had significant relationship with the perception of ethical values. Eastern countries are to be more particular or concern on ethical values compared to Western countries. It is happened due to the culture and belief of the community.

The rest of independent variables namely gender, ethnic and education do not have any significant relationship with the perception of ethical values. The significant value has been used to identify the relationship between the independent variables and dependent variable. This research also captured low R^2 for the regression analysis lead to understanding that some other important factors might not included for this research.

Theoretical Implication

Ethics recently perceived as important factors for the sustainability of organizations. There are a few demographics factors that actually have significant relationship with higher perception of hiring manager on ethics. From this study, age, marital status, managerial/employment level and employer's country of origin had significant relationship whereas gender, ethnic and education had no significant relationship with perception of hiring manager on ethics. It showed that certain demographic factors had significant impact to the perception. But based on the literature review, the inconsistent of the finding can be captured. It could be happened because the change of perception for the certain period. Example due to high awareness on the current issues of fraud, the perception on the importance of the ethical values will be increased.

Implications for the Policy Makers

This study is very important as 'eye-opener' to the issue of ethics. With recent scandals and fraud, it can be seen that the awareness is increasing nowadays. However the most important for the policy makers is to create the awareness systematically and periodically so that people will always aware about the importance of ethics. Education and awareness of ethics should be done at earlier stage example during the pre-school and primary school.

This study also revealed the important factors that contributed to the higher perception of hiring managers about ethical values. Organizations should consider matured employees or senior staff to make a decision in hiring process rather than giving authority or empowered the decision making to junior/younger staff.

Marital status of the hiring managers also need to be considered as they normally will make better hiring decision. It was clear that married person will have better perception on ethical values.

The managerial/employment level also plays significant role in the perception of ethics. The higher the level, the better their perception on ethics. The higher the level of employees, the more experience they have in order to make better a decision.

This study also indicated that the organization's country of origin influenced the perception of ethics. Those hiring managers from eastern companies/countries are more likely to perceive the importance of ethics in their belief compare to western companies. It is affected by the culture of the organization. As cited by Babakus et al. (2004: 260), the Islam and Eastern religion or countries indicate less tolerance for unethical practices.

Hopefully, this study's finding can trigger the government or private organizations the importance of selecting ethical candidates as their prospective employees. Bad hiring will caused more harm to the organization and that is why it is very important to ensure proper recruitment and hiring process is being done. It is recommended to create a proper flow or special code of conduct for the hiring managers/interviewers.

Limitations of the Study

A few limitations need to be highlighted here as per results of this study. This study needs to be further explored by understanding other factors beside the demographic factors that can influence the importance of ethics. Secondly, as this study is exploratory research, it is only to understand the perception towards the importance of ethics. This study cannot give clear result on how the hiring managers follow the process of hiring. This study also not identify whether the research done at the correct time to get the correct result. With many cases of fraud or malpractice, the perception to ethical value will be high due to high awareness but it could be generate different result if the research done during stable time or no issue of fraud or malpractice.

In addition, this study just mainly covered the individual perception, but the organization such as organization culture can also influence the perception. This research is not done on how the organization can play the role in influencing the hiring managers' perception towards ethics.

Directions for Future Research

A possible future research is to study the importance of selecting ethical prospective employees in the organization. This is important as the employee is actually the main element for the success of any organization. According to Berthal and Erker (2005) organizations are putting a greater emphasis on finding highly skilled candidates with strong ethics and integrity.

The future research can be done by looking at whether the ethical values of the candidate is equally important to other job requirements such as skills, educations and other competencies.

Besides that, few other dimensions can be introduced as independent variables such as the education history, family influence, culture, organization and religiosity. It is good to have comparison in the research between crisis time and non-crisis time with involve longer time on the research.

For the hiring purposes, another area that can be researched is the hiring process in term of assessing the ethics of the hiring manager during the selection process. Example, with crucial time to get new employees due to expansion, does the hiring manager will avoid proper verification of the candidates' suitability? The dimension to look at is how the testing and assessment to candidate has been done including verification of the application form, pre-employment screening such as background check and post employment screening.

Conclusion

As per this study, age, marital status, managerial/employment level and employer's country of origin have influenced the perception of the importance of ethics. The rest of demographics such as gender, ethnic and education have not shown significant perception. This could be because the high awareness on the importance of ethics nowadays compare previously. People start to think or take into consideration about ethics. The awareness must be done systematically and periodically so that people would not ignore the ethics gradually.

For the organization, it is important to consider ethical value as equally important with other job requirements such as skills, experience and knowledge. Proper hiring process can improve the chance of getting good people to run the businesses or organizations.

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The Myth of Corporate Social Responsibility: Philanthropy or Opportunism

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Abstract

In 1932, the first given concept of Corporate Social Responsibility (CSR) stated that the modern corporations must concern both the owners and society as a whole (Sirsly, 2009). By the 90s, CSR has grown tremendously that organizations can achieve their objectives while enhancing the consumers' well-being as well as society's (Kotler & Lee, 2005). Nowadays, CSR plays an important role in business for their reputation, income, staff and consumer loyalty, and image of a company. However, some scholars and economists argued that the commitment by firms to greater social responsibility results in additional costs and companies engage only with those that are useful to them. The logic of CSR has generated a great deal of debate in the academic as well as the business circles in recent times. The thing is, if profits are primary, CSR then can only be a strategic marketing tool or window dressing to the public. Thus, my question is, CSR is a philanthropy or opportunism?

Introduction

In 2001, the European Commission has defined Corporate Social Responsibility (CSR) as “a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis.” And the World Business Council for Sustainable Development (WBCSD) has defined as “the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large.” In other words, companies commit an obligations to avoid harm and to improve stakeholders’ and society’s well-being. While common definitions of CSR include mandatory responsibilities, such as legal compliance, or make reference to societal expectations (Carroll, 1999), a recurring theme in the CSR debate is its grounding in the voluntary behavior of companies. For example, Vogel (2006) describes CSR in terms of 'practices that improve the workplace and benefit society in ways that go above and beyond what companies are legally required to do.’

A few decades has passed, CSR practice still fascinate by the academia and is firmly rooted on the global business agenda. One assumption behind is that, nowadays, modern consumer calls for a greater societal contribution from the corporations, not only to behave ethically but also to be the carrier to change towards a better world. Thus, this is the fundamental and important issue which large corporations use as a business philosophy for their reputation, image, income, staff and consumer loyalty, and in the end society.

However, some scholars and economists argued that the commitment by firms to greater social responsibility results in additional costs and this can possibly create conflict among the various group of stakeholders, hence, companies engage only with those that are useful to them. Supported by Dr. Milton Friedman, an American economist, in 1970 arguing that a company is the property of its shareholders and the social responsibility of firms is to maximize profits. Likewise, Drucker (1984) argued that the first social responsibility of business is to immunize adequate profit to cover the future costs. In other words, firms can only make a decision which favors the wider social good if the outcome is also the most profitable one. Besides, if shareholders wanted social responsibility, they would give a direct contribution to charity rather than invest it in corporations.

The logic of CSR has generated a great deal of debate in the academic as well as the business circles in recent times. However, not many companies understand the whole notion of CSR integration into the existing business mechanism. The argument that businesses engage in CSR just as one of many other ways of increasing the firm’s performance seems patently unfit to explain why businesses engage or disengage in socially desirable outcomes. The thing is, if profits are primary, CSR then can only be a strategic marketing tool or window dressing to the public. Thus, my question is, CSR is a philanthropy or opportunism? Here are the four key myths of CSR that I would like to argue about.

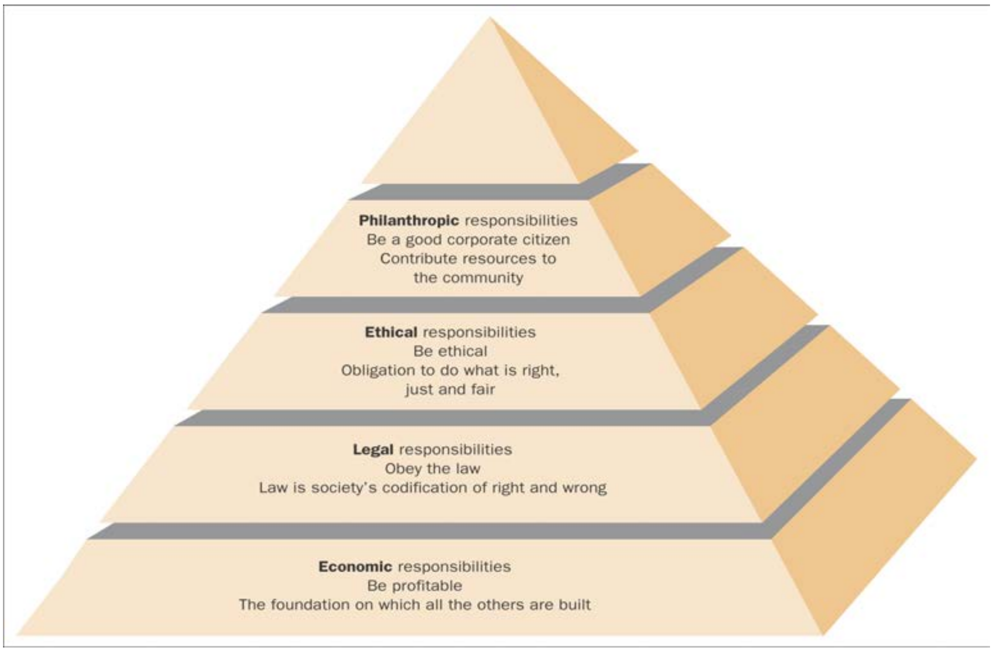
Myth#1: CSR is a true philanthropy.

First of all, philanthropy is an initiative where people or corporations make a direct contribution to a charity or cause in the form of cash grants or donation. Sincere philanthropy is praiseworthy, no doubt about it.

But according to Dr. Archie B Carroll's CSR pyramid (1991, pp. 39-48)

> "Corporate social responsibility involves the conduct of a business so that it is economically profitable, law abiding, ethical and socially supportive. To be socially responsible then means that profitability and obedience to the law are foremost conditions when discussing the firm's ethics and the extent to which it supports the society in which it exists with contributions of money, time and talent."

Carroll's CSR model contains four categories of corporate responsibility organized from most to least important. According to Carroll, the "history of business suggests an early emphasis on the economic and then legal aspects and a later concern for the ethical and discretionary aspects". Economic obligations are, therefore, seen to be moderated by ethical responsibilities or social expectations and norms. Discretionary responsibilities go beyond ethical responsibilities and include philanthropic measures.



Carroll's CSR Pyramid

The fact is, when corporations make donations to a charity or cause they are giving away their shareholders' money which they can only do if they see potential profit in it. Many critics have stated that, by being philanthropic, this is a cheap vehicle for advertising to help boost up the companies' images and address as the companies' awareness of CSR. In the end, the return to philanthropy is approximately equal to the return to advertising (Wang, Choi & Li, 2008).

The additional quote from Dr. Milton Friedman (1970, p.2)

> "In each of these cases, the corporate executive would be spending someone else's money for a general social interest. Insofar as his actions accord with his social responsibility reduce returns to stockholders, he is spending their money. Insofar as his actions raise the price to customers. He is spending the customer's money. Insofar as his actions lower the wages of some employees, he is spending their money. The stockholders or the customers or the employees could separately spend their own money on the particular action, if they wish to do so."

So is this a true and sincere philanthropy?

Myth#2: CSR is a win-win solution.

One assumption behind is that business outcomes and social objective can become more or less aligned. In other words, the companies make profits and society benefits.

The truth is, like I mentioned earlier, companies can only make a decision which favors the wider social good if the outcome is also the most profitable one. In this way, companies choose charities which will attract target consumers and the companies benefit by increasing sales and wealth in the hands of their shareholders. This can refer to cause-related marketing issue, as an initiative where a corporation commits to making a contribution or donation a percentage of revenues to a specific cause based on product sales. Which means, socially responsible investors have to ensure the financial success of their products. So they can only support a company's efforts to be socially responsible where it is profitable.

Baron (2000) refers to this as strategic CSR; i.e., activities undertaken by a firm in the nature of CSR that increase its market value. Referring to days on which each store donates 5% of its sales of local charities, by interviewing John Mackey, the co-founder and co-CEO of Whole Food Market (the world leader in natural and organic foods in USA.). He described that

> "While our stores select worthwhile organizations to support, they also tend to focus on groups that have large membership lists, which are contacted and encouraged to shop our store that day to support the organization. This usually brings hundreds of new or lapsed customers into our stores, many of whom then become regular shoppers. So a 5% Day not only allow us to support worthwhile causes, but is an excellent marketing strategy that has benefited Whole Food investors immensely."

This indicated that firms carry strategic CSR beyond the level that maximizes profits or market value.

Besides, certain kinds of business are immoral – for example, selling cigarettes or manufacturing weapons. Others distinguish between promoting cigarettes and supplying them to people who are already addicted. On the military contracting side, they can argue that protecting one's country is the right thing to do. In the end, corporations use CSR practices for the environment but at the same time treat society unfairly.

So is CSR the tool to attract sophisticated customers, avoid regulation, avoid boycotts, or avoid the claims of pressure groups on the impacts of environment and society?

Myth#3: Consumer is the key driven of CSR.

One of the most important challenges in marketing is the ability to predict consumer behavior and attitude towards a product of company. Modern consumers do not want to think that their consumption habits and lifestyle have a negative impact on others or on the environment and they intend to buy products from a business that support a worthy cause.

The truth is, CSR becomes an ingredient in the product that adds value and unfortunately costs. As consumers' primary concerns are cost and convenience, quality and brand familiarity, CSR, therefore, is not a great importance in the purchasing behavior of the major consumers.

The awareness among the public for social and environmental corporate practices is very low (Dawkins, 2004). Only 30% are able to name a company that they think is particularly ethically, environmentally or socially responsible and only 37% can name a particular company that has practices to help society or the community. MORI, the second largest market research organization in the UK, indicate that the Western consumer has become more sophisticated and skeptical but a sophisticated consumer does not perforce consume ethically. It is notable that the majority of the public is merely expressing concerns about these issues but does not place ethical considerations above other criteria regarding purchasing decisions. As a survey of MORI (2000) for the Co-operative Bank, 89% of British consumers said they were concerned about social and environmental impacts, but only 18% said they reflect this in purchasing decisions.

Furthermore, as the research of Carrigan & Attalla (2001) demonstrates, consumers will purchase in an ethical way only if it is convenience to them and they will not incur any extra cost in terms of added price or loss of quality.

So consumers are not consuming ethically.

Myth#4: CSR is a free market economy.

This could sometimes be true but is false in general. Companies are naturally keen to be aligned with CSR schemes because they offer good public relation, thus, competitive pressure amongst companies will actually lead to more companies competing over ethics.

With CSR efforts, companies have advantage over those that don't (especially small firms), such as more positive reputation, increased shareholder value, greater consumer loyalty, better employee retention and recruitment, and a more profitable.

The truth is, the larger firms use CSR as a weapon to disadvantage competitors by using big amount of money or CSR award received, and lobbying for standard that reduced the value of the small firms. Most large firms now issue a voluntary social and environmental report alongside their regular financial report; meanwhile the amount of money being poured into socially responsible investing (SRI) funds has been growing so fast.

Small firms are facing demands from customers and their supply chain to demonstrate social responsibility. They have the same need to build customer and employee loyalty. They too want to build a strong and sustainable business that will last and provide long-term value. But do they have enough resources to implement it?

Is such a use of CSR activities moral? Or it just serves as an effective barrier to entry by imposed disproportionate costs and rules on new entrant or small rivals which the large firm can capitalized on. Since CSR is also a vehicle for companies to thwart attempts to control power and to gain access to markets, CSR is a problem not a solution.

The fact is, in a perfect market, the most competitive company is also the most responsible company and vice versa.

ISO 26000

CSR advocates spend a considerable amount of effort in developing new standards, partnership initiatives, and awards programs in an attempt to align social responsibility with a business case. ISO 26000 is one of them.

ISO 26000 is a guidance standard and provides recommendations on Social Responsibility. It will not be a certifiable standard, but rather offer best practices where organizations can adapt the guidelines to their own operation, supply chain and markets.

ISO 26000 is highly descriptive and contain ample, detailed and wide ranges, scope and areas of CSR for different companies in different sectors to apply and re-develop it into their own business models. In particular, it provides also detailed steps for adoption from due diligence, assessment, analysis, planning, implementation and development. Lastly, it encourages companies to observe and respect each individual local context when considering of taking ISO 26000 into account. However, ISO 26000 is not yet an official member of the ISO Guidelines (still Committee Draft), but even so, it is not yet well accepted by many companies in the developing countries, because ISO 26000 is anticipated as one of non-tariff barrier threats. In this report, the reason to elaborate ISO 26000's seven CSR components is that it seems to be the one covering most CSR areas. The seven CSR components, given as Socially Responsibility Guidelines by ISO 26000, are as follows:

A. Organizational Governance
Organizational governance is the system by which an organization makes and implements decisions in pursuit of its objectives. Governance systems vary, depending on the size and type of organization and the environmental, economic, political, cultural and social context in which it operates. They are directed by a person or group of persons (owners, board members of companies, members constituents or others) having the authority and responsibility for pursuing the organizations objectives.

B. Human rights
Human rights are the basic rights to which all human beings are entitled because they are human beings, with an intrinsic desire for freedom, peace, health and happiness. There are two broad categories of human rights. The first category concerns civil and political rights and includes rights as the right to life and liberty, equality before the law and freedom of expression. The second category concerns economic, social and cultural rights and includes rights as the right to work, the right to food, the right to health, the right to education and the right to social security. Human rights are inherent, inalienable, universal, indivisible and interdependent:

C. Labor Practices
The creation of jobs, as well as wages and other compensation paid for work performed are among an organization's most important economic and social impacts. Meaningful and productive work is an essential element in human development; standards of living are improved through full and secure employment. Its absence is a primary cause of social problems. Labor practices have a major impact on respect for the rule of law and on the sense of fairness present in society: socially responsible labor practices are essential to social justice, stability and peace.

D. Fair Operating Practices
Fair operating practices concern ethical conduct in an organization's dealings with other organizations. These include relationships between organizations and government agencies, as well as between organizations and their partners, suppliers, contractors, competitors and the associations of which they are members. Fair operating practice issues arise in the areas of anti-corruption, responsible involvement in the public sphere, fair competition, promoting social responsibility in relations with other organizations and respect for property rights.

E. Consumer Issues
Organizations that provide products or services to consumers and customers have responsibilities to those consumers and customers. These responsibilities include providing education and accurate information, using fair, transparent and helpful marketing and contractual processes and promoting sustainable consumption. They also involve minimizing risks from the use of products or services, through design, manufacturing, distribution, information provision, support services and recall procedures. Many organizations collect or handle personal information and have a responsibility to protect the security and privacy of that information. Organizations have significant opportunities to contribute to sustainable consumption and sustainable development through the products and services they offer and the information they provide, including information on use, repair and disposal.

F. Community Involvement and Development
It is widely accepted today that organizations should have a relationship with the communities in which they operate. This relationship may be based on community involvement to contribute to community development. Community involvement and development are both integral parts of broader sustainable development. Community

involvement – either individually or through associations seeking to enhance the public good – helps to strengthen civil society. Organizations that engage in a respectful manner with the community and its institutions reflect and reinforce democratic and civic values.
For the purposes of this clause, “community” generally refers to the residential or other social settlement located in physical proximity to the organization’s base or bases. However, in some circumstances the term might be defined and understood on a wider basis, for instance a virtual community concerned with a particular ethnic group or development issue. Relationships with the community will vary according to the nature, size and mission of an organization.

Various activities in this community involvement and development cover a wide range of issues for example:
• Education and culture
• Employment creation and skills development
• Technology development
• Wealth and income creation
• Health
• Social investment, e.g. corporate volunteering, giving or philanthropy
• Community spirit and well being
• Rural and urban planning and development

With these specific components from ISO/CD 26000, this new version (Committee Draft) of ISO 26000 will enable various companies in different kinds of industries to develop and implement their CSR activities better. More importantly, this new version has developed quality recommendations of the CSR operational formulation process. The guidelines underpin that companies must conduct their due diligence of the existing operation prior to designing CSR programs. Furthermore, the one key success factor in initiating CSR programs is to integrate every component of CSR into the business model and operations. Also this new version of ISO 26000 emphasizes on “Sustainable Development”, and a good application to fit all sizes of business organizations including small and medium enterprises. Moreover the guidelines help business organizations manage their stakeholders’ expectation towards the companies better. Lastly, ISO/CD 26000 articulates that Organizational Governance is the core fundamental corporate responsibility element that encompasses the rest of the CSR components. In most frameworks, governance is a separate component.

Conclusion

I’m not trying to be pessimistic about CSR practices. Corporations are the most efficient way of determining social needs and delivery social solutions. I do believe that there are good companies out there making efforts to implement CSR and they bring great benefit to society. But others are being opportunism to serve their own interest and benefit above others.

The implication of these myths is that CSR can either be chosen as a field of corporate endearment to all sorts of constituencies or shunned as a potential detractor of management from its initial brief.

Corporations must understand, realize and take further step to adopt CSR practice correctly and strategically. Corporations must find a point of equilibrium in blending self-interest with principles and values that accord with the public good, a point that ensures the primary and legal obligation of the business to operate profitably is not compromised, but enhanced. It also involves corporations accepting accountability for the externalities of their business activities that impact the public and stakeholder interests. In the end, we should holistically value the corporations behavior, not just separately look at CSR activity the corporations use as a public relation.

The rationale and assumptions behind the CSR discourse are:
1. corporations should think beyond making money and pay attention to social and environmental issues;
2. corporations should behave in an ethical manner and demonstrate the highest level of integrity and transparency in all their operations;
3. corporations should be involved with the community they operate in terms of enhancing social welfare and providing community support through philanthropy or other means (Banerjee, 2008).

At last, for Buddhist, we believe that doing good should be wholly pure and should not involve commercial interest at all.

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Ecological Solid Waste Management Program and Social Entrepreneurship in Camarines Sur

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Abstract

This study assessed the degree of implementation of Ecological Solid Waste Management Program (R.A. 9003) and the Social Entrepreneurship programs embodied in the law in Camarines Sur. It determined the 1) degree of implementation of ESWMP by the local government units (LGUs) along development program for the improvement of solid waste, techniques on resource conservation and on methods of waste reduction, collection separation and recovery; 2) existing practices on ESWMP of households, schools and business & industries along reuse, recycle, refuse and reduce; 3) the social entrepreneurship activities on solid waste management along Community Environmental Management Education (CEME), Environmental Values and Ethics (EVE), Environmental Health and Safety (EHS) and Environmental Business Opportunity (EBO); 4) the relationship between the LGUs' implementation of ESWMP and its social entrepreneurship activities, and 5) the relationship between the existing practices with ESWMP. The descriptive-correlation research design was used to determine the LGUs' implementation of ESMWP and its social entrepreneurship programs. The data were gathered from households (395), schools (750), business and industries (384) and local government units (144). The major findings were: 1) LGUs' implementation on development programs for the improvement and management of solid waste, resource conservation and techniques and methods of waste reduction, collection, separation and recovery had a mean rating of 3.05, 2.93 and 2.99. 2) The ESWM practices along reuse recycle, refuse and reduce had a mean rating of 3.08, 3.21, 3.08 and 3.08. 3) The social entrepreneurship activities were: along CEME, 3.13; EVE, 3.19; EHS, 3.19 and EBO, 3.14. 4) On test of relationship: On Development Program, the first two values were significantly higher than the critical value of r. On Methods of Waste Reduction and Social Entrepreneurship activities the first two r values were significantly higher than the critical r value. 5) On Reuse and S.E., the r values obtained for CEME, were: -0.014, 0.029 and -0.024; EVE, 0.083, -0.017 and -0.195; EHS, 0.032, -0.025 and 0.000; and EBO, 0.067, 0.012 and -0.081. Recycle and CEME, the r values were: -0.028, 0.086 and -0.035; EVE, 0.067, 0.071 and 0.254; EHS, 0.100, 0.069 and -0.065; and EBO, 0.031, 0.011 and -0.001. Along refuse and CEME, the r values were: -0.025, 0.107 and 0.065; EVE, 0.068, 0.057 and -0.058; for EHS, -0.089, 0.088 and 0.030, and EBO, 0.103, 0.040 and 0.019. Reduce and CEME, the r values were -0.025, 0.107 and 0.065; EVE, 0.068, 0.057 and -0.058; EHS, -0.089, 0.088 and 0.030 and EBO, 0.103, 0.040 and 0.019. The major conclusions were: 1) The LGUs' fairly implemented the programs. 2) The ESWMP along reuse, recycle, refuse and reduce were fairly practiced 3) The CEME, EVE, EHS and EBO were fairly practiced. 4) There is a significant relationship between the Development Program of the LGUs' and CEME and EVE; on Techniques on Resource Conservation and CEME and EVE; and on Methods of Waste Reduction and CEME and EVE, and 5) There is significant relationship between Reduce and CEME for schools and EVE for B&I; Recycle and EVE for B&I; and Reuse and EVE for B&I.

INTRODUCTION

The future is now centered on worldwide environmental changes. Catastrophes are shattering many places on earth. The Philippines is not an exception. Recently, heavy rains brought damage to properties both in the rural and urban areas of the country; Camarines Sur is not an exception. These happened because there was a great neglect on the effects of development to the environment; hence, sustainability was not attended. Botkin & Keller (2005) said that as nation increases its economic activities, environmental concerns and the value system of the community should not be neglected to achieve real social and economic progress. In addition, Villonco (2007) mentioned that social enterprise engages the people to work together, create solutions and increase their capacity to solve their own problems as an empowered community.

Solid waste is a worsening environmental problem in urban centers in the Philippines. Mountains of garbage in Metro Manila caused the lives of people like the Payatas tragedy in Quezon City (Alampay, 2009), and lately the Olongapo tragedy (ABS-CBN Reports, 2010). The province of Camarines Sur is an economically developing province in the Bicol Region due to its increase in tourism and retail marketing opportunities (ITCSO, 2010). As the province improves its economic condition its environment is not free from deterioration. It is for this reason that this study was conducted to identify plans and programs for the proper management of solid wastes and at the same time to provide livelihood opportunities out of wastes generated by the stakeholders of the province.

Statement of the Problem

1) What is the degree of the implementation of the Ecological Solid Waste Management Program by the local government units along development program for the improvement of solid waste, techniques on resource conservation, and methods of waste reduction, collection, separation and recovery?; 2) What are the existing practices on Ecological Solid Waste Management Program of households, schools and business and industries along: reuse, recycle, refuse and reduce?; 3) What are the Social Entrepreneurship activities on solid waste management of the respondents along community environmental management education, environmental values and ethics, environmental health and safety, and environmental business opportunity?; 4) Is there a relationship between the LGUs' implementation of Ecological Solid Waste Management Programs with Social Entrepreneurship activities?; 5. Is there a relationship between the existing practices on Ecological Solid Waste Management programs with Social Entrepreneurship of households, schools and business industries?

Research Methodology

The researcher used the descriptive-correlation research design to determine the relationship between the LGUs' implementation of ecological solid waste management program and the social entrepreneurship activities of the law. In addition, it determines the relationship between the existing practices on ecological solid waste management programs and the social entrepreneurship activities of households, schools and business industries out of generated wastes. The survey method was employed to gather the needed information. The data were gathered from households, schools, business and industries, and local government units. This study was conducted in one (1) city and eleven (11) municipalities. These are situated along the Daang Maharlika highway of the province of Camarines Sur.

The stratified sampling was used. The purposive-convenience was also used in the choice of respondents. The respondents of the study came from households, schools, business and industries, and local government units. The total number of respondents is 1,673. The respondents from the local government units were one hundred forty-four (144). The business and industries cluster has three hundred eighty-four (384) respondents. They were the employees of the business and industries available at the time the survey was conducted. The business and industries are those registered at the Department of Trade and Industry (DTI). There were three hundred ninety-five (395) respondents from the household group. The survey of households was done by selecting any of the members of the household available at the time the survey was conducted. In high school there were four hundred fifty (450) respondents. The college has three hundred (300) respondents. All respondents were randomly selected based on the sample size determined using the Slovin formula.

Statistical Treatment

The data were treated statistically using the mean and ranking for problems 1, 2 & 3, and Correlation Coefficient (PEARSON r) for problems 4 and 5. Mean and ranking were used to determine the existing practices on Ecological Waste Management Program of households, schools, business and industries and local government units; the extent of the implementation of the Ecological Waste Management Program along the development program for the improvement and management of solid waste, techniques on resource conservation, methods of waste reduction, collection, separation, and recovery. Also, it determined whether the existing practices conform to the expected outputs of the Ecological Waste Management Program. Pearson-R Moment of Correlation was used to determine the relationship of the ecological solid waste management program and existing practices of stakeholders.

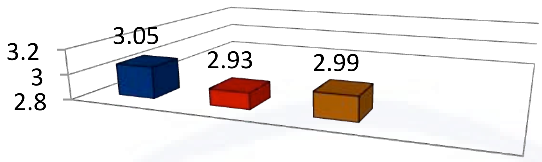
ANALYSIS AND INTERPRETATION OF DATA

Extent of Implementation of ESWMP

Development Program for the Improvement and Management of Solid Waste. The result of the assessment revealed that LGUs fairly implemented (3.05) this program.

Techniques on Resource Conservation. The data revealed that LGUs fairly implemented (2.93) this program. The program on issuing a policy requiring the owner or person in charge of premises containing six (6) or more residential units to segregate their waste was highly implemented (3.6), issuance of new systems and techniques on waste reduction, reuse and recycling (3.18), and monitoring on a regular basis the segregation of waste by categories, such as biodegradable or non biodegradable (3.07) were fairly implemented. Other techniques such as providing reclamation programs and buy-back centers for recyclables materials was rated 2.69. Its ability to provide procedures on how to collect solid waste to prevent damage to the container and scattering of solid waste within the collection vicinity obtained a rating of 2.58; and provision of an evaluation system for private sectors offering waste collection services (2.57) was rated as poorly implemented.

Methods of Waste Reduction, Collection, Separation and Recovery. The methods on waste reduction, collection, separation and recovery was fairly implemented (2.99) by the local government units (LGUs). The method to adopt innovative processes that will recycle and reuse the materials (3.40) was fairly implemented. This is the same with the method to provide waste collection vehicle (3.10) and on the issuance of guidelines on how waste collector will received the waste generated by the respondents particularly on final sorting, segregation, composting and recycling (3.06). The last three activities were fairly implemented by the LGUs particularly in their initiative to provide separate container for wastes from all sources (2.92), the design provided by LGUs on how to operate and transfer stations for waste handling capacity (2.78) and an allocation of areas intended where containers to serve as drop-off of accumulated waste may be placed (2.65).



Legend:

Development Program for the Improvement and Management of Solid Waste
Techniques on Resource Conservation
Methods of Waste Reduction

Figure 1. Extent of LGU Implementation of Ecological Solid Waste Management Program

Existing Practices on Ecological Solid Waste Management Program of Respondents

Reuse. It can be noted that reuse of reusable products such as newspapers, calendars had the highest rating of 3.28. Rank 2, with a mean rating of 3.18 was on the use of reusable papers, pens and bags. Policy implementation ranked third (2.96) and the lowest rating (2.93) was on reusable decorations. Among the 3 groups of respondents, the schools had the highest rating of 3.20 and the business and industries sector obtained the lowest (2.93) rating.

Recycle. The three groups of respondents practiced repairs/exchange of personal materials/facilities. It obtained the highest rating (3.49). Information and Communication campaign materials ranked second (3.42). Waste transformation activities had a rating of (3.14), and the lowest rating (2.86) was on the procurement practices. The mean rating for all the parameters given is 3.21, categorically a fair rating. It was clearly shown that schools had the highest rating of 3.36 and the business and industries sector obtained the lowest (3.03).

Refuse. From the three groups of respondents decorative materials had the highest rating of 3.14. Educational materials ranked second with a mean rating of 3.13. Facilities, supplies and materials ranked third (3.12), and the lowest rating (2.96) was on policy implementation. The mean rating for all the components given is 3.08, categorically a fair rating. Among the three (3) groups of respondents, the schools had the highest rating of 3.12 and the household sector obtained the lowest (3.05) rating.

Reduce. Along reduce of households, schools and business and industries. It can be noted that having a procurement program had the highest rating of 3.19. Rank 2, with a mean rating of 3.13 was on waste disposal program. It was made by minimizing the generation of waste in the form of an arrangement with vendors to provide trash bins, and brings waste products to collection centers. Communication and information material ranked third (3.10) and the lowest rating (2.94) was on policy implementation. The mean rating for all the parameters given are 3.08, categorically, a fair rating. Among the three (3) groups of respondents, the schools had the highest rating of 3.24 and the business and industries sector obtained the lowest (2.97) rating.

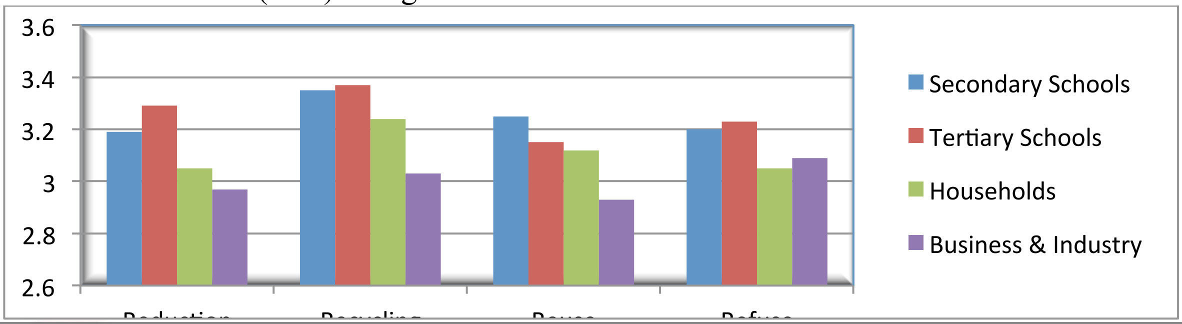


Figure 2. Extent of Integrative Practices on Ecological Solid Waste Management

Extent of Social Entrepreneurship Activities of the Respondents

Community Environmental Management Education (CEME). The activities of the respondents along Community Environmental Management Education (CEME) showed that capability enhancement had the highest rating of 3.22. Rank 2, with a mean rating of 3.15 was on project management and participation. Policy implementation ranked third (3.14) and the lowest rating (3.04) was on educational integration. Among the four (4) group of respondents, the schools had the highest rating of 3.30 and the local government units sector obtained the lowest (3.03) rating. Capability enhancement ranked first because two (2) out of the four (4) groups of respondents: business and industries (3.21) and local government units (3.22) gave this parameter the highest rating. The preference for capability enhancement is possibly embodied in the organizational program of the respondents particularly the business and industries and local government units.

Environmental Values and Ethics (EVE). The data revealed that community extension program had the highest rating of 3.21. Rank 2, with a mean rating of 3.19 was on the modeling activities of the respondents. Resource sharing ranked third (3.18) and the lowest rating (3.17) was on value orientation. Among the four (4) group of respondents, the schools had the highest rating of 3.39 and the local government units sector obtained the lowest (2.93) rating. Community extension program ranked first because two (2) out of the four (4) respondents ranked this component as the second highest, such respondents are: households (3.28) and business and industries (3.31). In addition, both schools (3.37) and local government units (2.89) ranked this component as the third priority from among the listed components.

Environmental Health and Safety (EHS). It is shown that the physical administration and maintenance had the highest rating of 3.34 from all the components of social entrepreneurship along environmental health and safety. Rank 2, with a mean rating of 3.15 was on medical assistance. Safety measure ranked third (3.09) and the lowest rating (3.03) was on cleanup program. Among the four groups of respondents, the schools had the highest rating of 3.39 and the business and industries sector obtained the lowest (3.09) rating.

Environmental Business Opportunity (EBO). It can be shown from the data that capability building had the highest rating of 3.20. Rank 2, with a mean rating of 3.16 was on income generating activities. Cost-related measures ranked third (3.11) and the lowest rating (3.10) were on activity integration. Among the three groups of respondents, the schools had the highest rating of 3.31 and the business and industries sector obtained the lowest (3.03) rating.

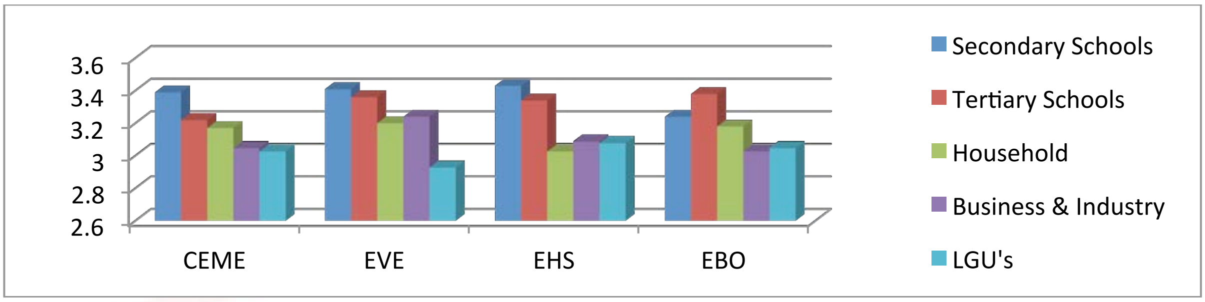


Figure 3. Integrative Practices of Social Entrepreneurship Activities

Relationship of LGU Implementation of ESWMP with Social Entrepreneurship

Development Program. The computed r-values for the test of relationship between Development Program and Social Entrepreneurship activities along Community Environmental Management Education (CEME), Environmental Values and Ethics (EVE), Environmental Health and Safety (EHS) and Environmental Business Opportunity (EBO) were: 0.281**, 0.510**, 0.141 and 0.011, respectively.

Techniques on Resource Conservation. The computed r-values for the test of relationship between Techniques on Resource Conservation and Social Entrepreneurship activities along CEME, EVE, EHS and EBO were: -0.407**, -0.558**, 0.067 and 0.069, respectively.

Methods of Waste Reduction, Collection, Separation and Recovery. The computed r-values for the test of relationship between Methods of Waste Reduction, Collection, Separation and Recovery and Social Entrepreneurship activities along CEME, EVE, EHS and EBO were: 0.580**, 0.533**, -0.024 and 0.066, respectively.

Relationship between Waste Practices and Social Entrepreneurship

Reuse and Social Entrepreneurship. The test for correlation between the ecological solid waste management practices and social entrepreneurship activities revealed that along reuse, the r values obtained and its test of relationship with CEME of households, schools and business and industries, were: -0.014, 0.029 and -0.024, respectively; for EVE, 0.083, -0.017 and -0.195*, respectively; EHS, 0.032, -0.025 and 0.000, respectively and EBO, 0.067, 0.012 and -0.081, respectively.

Recycle and Social Entrepreneurship. The correlation between recycle and social entrepreneurship activities showed that the r values obtained and in their test of relationship with CEME of households, schools and business and industries were: -0.028, 0.086 and -0.035, respectively; EVE, 0.067, 0.071 and 0.254**, respectively; EHS, 0.100, 0.069 and -0.065, respectively, EBO, 0.031, 0.011 and -0.001, respectively.

Refuse and Social Entrepreneurship. The correlation between refuse and social entrepreneurship activitie, the r values obtained and its test of relationship with CEME of households, schools and business and industries were -0.025, 0.107 and 0.065, respectively; EVE, 0.068, 0.057 and -0.058, respectively; EHS, -0.089, 0.088 and 0.030, respectively; EBO, 0.103, 0.040 and 0.019, respectively. There is negative relationship between CEME in household (-0.025), EVE in business and industries (-0.058) and EHS in household (-0.089) along refuse. It was noted that while refuse was practiced CEME in households decreased. Household members still tend to use new materials because of the different activities they were involved. EVE is reduced in business and industries because they operate according to the standard organizational procedure. Also, health and safety is negative in households because they presumed that the children will always be safe while inside their houses.

Reduce and Social Entrepreneurship. In the test of relationship between Reduce and Social Entrepreneurship Activities, the r values obtained and its test of relationship with CEME of household, schools and business and industries were -0.025, 0.107 and 0.065, respectively; EVE, 0.068, 0.057 and -0.058, respectively; EHS, -0.089, 0.088 and 0.030, respectively; and EBO, 0.103, 0.040 and 0.019, respectively.

FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

PROBLEM NO.1

Findings:

The LGUs' implementation of development programs for the improvement and management of solid waste had a mean rating of 3.05 and the highest (3.33) was on giving of economic incentives and assistance for the establishment of privately owned facilities to manufacture products from post-consumer materials and lowest (2.27) in the issuance of guidelines for compost products; The mean rating for LGU implementation on resource conservation and techniques was 2.93 and the highest (3.6) rating was on the issuance of policy requiring owners of premises with more than six residential units to practice segregation and the lowest (2.57) on the evaluation system to be conducted by LGUs to private sectors offering waste collection services; while the LGUs implementation of the methods of waste reduction, collection, separation and recovery had a mean rating of 2.99 and the highest (3.40) was on the initiative to adopt innovative processes to promote effective solid waste management practices and lowest (2.65) on allocating an area and containers to drop-off accumulated waste.

Conclusions:

The LGUs fairly implemented the development program for the improvement and management of solid waste particularly on post-consumer materials but it lacks enforcement of guidelines; On techniques on resource conservation primarily on waste segregation were fairly implemented by LGUs but there is poor implementation on feed-backing; The methods on waste reduction, collection, separation and recovery were fairly implemented by LGUs but the focus is on recycling only.

Recommendations:

The LGUs can conduct an environmental integrated planning to develop institutional framework consisting of five areas: planning, education, appropriation, legislation and governance. Under the (1) planning component, the LGUs can invite the stakeholders of the municipality and other civil society groups to participate in designing development program strategies. (2) Education may be conducted to get the support and participation of the people. (3) Appropriation is to be made by appropriating budget for the implementation of the program. (4) Legislation may be facilitated by approving an ordinance for immediate implementation of the act and providing thereto necessary sanctions and (5) governance is to be made by monitoring the performance and continuous evaluation of the program; They can strengthen technical specialization by organizing a Council of Waste Advisers (CWA) who will handle technical advice, support and action related to techniques on resource conservation. The members will come from various cause- oriented groups selected according to skills and competency; and they can intensively promote waste reduction, collection, separation and recovery by creating a mandatory Barangay Trash to Treasure Program. The goal of the program is to make the people understand that waste can be turned into useful resources by adopting the 4R's of waste management.

PROBLEM NO. 2

Findings

The ecological solid waste management practice of the respondents along reuse had a mean rating of 3.08 and the highest (3.28) was on reusable products and the lowest (2.93) in using reusable decorations. Among the 3 groups of respondents, the schools had the highest rating of 3.20 and the business and industries sector obtained the lowest (2.93) rating. The practice along recycle of the three groups of respondents had a mean rating of 3.21 and the highest (3.49) was on repairs/exchange of personal materials and facilities and the lowest (2.86) was on the procurement practices. Schools had the highest rating of 3.36 and the business and industries sector obtained the lowest (3.03). The practice along refuse of the three groups of respondents had a mean rating of 3.08 and the highest (3.12) was on facilities, supplies and materials and the lowest (2.96) in the implementation of policy. Among the three groups of respondents, the schools had the highest rating of 3.12 and the household sector obtained the lowest (3.05) rating. The practice along reduce of the three group of respondents had a mean rating of 3.08 and the highest (3.12) was on facilities, supplies and materials and the lowest (2.96) in the policy implementation. Among the three groups of respondents, the schools had the highest rating of 3.24 and the business and industries sector obtained the lowest (2.97) rating.

Conclusions

The respondents fairly practiced ecological waste management along reuse specifically on the reuse of products and did not take advantage on the reuse of decorations as a good reuse practice. Recycle is fairly practiced by all the respondents particularly on the repairs or exchange of personal materials and facilities with less priority on consideration to the materials available in the procurement of office supplies. All the respondents fairly practiced refuse particularly on facilities, supplies and materials with lesser concern on policy implementation. The three groups of respondents fairly practiced reduce particularly in the procurement program and had poor attention in policy implementation.

Recommendations

LGUs can develop training materials to develop the skills of the people on how to practice reuse, recycle, refuse and reduce. LGUs can provide environmental adult education to improve the skills and provide techniques on the proper spending and acquisition of supplies and materials. The LGUs can improve environmental governance by using the evaluation and control model to closely monitor the compliance and provide interventions. Also, they can organize an environmental compliance committee to monitor regularly the policy made to reduce the generation of waste.

PROBLEM NO. 3

Findings

The social entrepreneurship activities along community environmental management education of the respondents had a mean rating of 3.13 and the highest 3.22 was on capability enhancement and the lowest (3.04) was in the educational integration; The social entrepreneurship activities along environmental values and ethics of the respondents had a mean rating of 3.19 and the highest (3.21) was on the community extension program and the lowest (3.17) is in the value formation; The social entrepreneurship activities along environmental health and safety of the respondents had a mean rating of 3.19 and the highest (3.34) was on physical administration and maintenance and the lowest (3.03) is in the clean-up program. The social entrepreneurship activities along environmental business opportunity of the respondents had a mean rating of 3.14 and the highest (3.20) was on capability building while the lowest was (3.10) in the activity integration.

Conclusions

The respondents fairly practiced community environmental management education particularly on capability building but lacks activities related to waste; environmental values and ethics particularly on community extension program but lacks value orientation; environmental health and safety particularly on the physical administration and maintenance but with lesser concern in the conduct of clean-up program; and environmental business opportunity specifically on capability building with lesser concern on activity integration.

Recommendations

The LGUs can legislate an advisory requiring all stakeholders of the community to integrate waste practices in all its activities by giving incentives to business and industries for adopting high recyclable materials. It can provide educational infrastructure projects to schools to continuously eliminate waste creation and provide discount program to households for practicing efficient waste management activity. They can also strengthen local parish environmental committee to promote formation of the values, attitudes and beliefs of the community members by providing parish program that will train household members to engage in various waste- related opportunities that will augment their income and invite civil society group to manage a monthly clean up drive in all barangays. The recognition and support incentive program can be appropriated to increase public participation such as waste barter food program, and design environmental activities that will improve awareness and increase income opportunity from waste products such as making of school supplies, household and office decorative materials made from wastes. Strengthen linkages with international market to reposition the product through massive quality development and assurance program.

PROBLEM NO. 4

Findings

Along Development Program, the computed r-values were: Community Environmental Management Education (0.281), Environmental Values and Ethics (0.510), Environmental Health and Safety (0.141) and Environmental Business Opportunity (0.011). The computed r-values along Techniques on Resource Conservation were: Community Environmental Management Education (-0.407), Environmental Values and Ethics (-0.558), Environmental

Health and Safety (0.067) and Environmental Business Opportunity (0.069). The computed r-values along Methods of Waste Reduction, Collection, Separation and Recovery were: Community Environmental Management Education (-0.580), Environmental Values and Ethics (0.533), Environmental Health and Safety (-0.024) and Environmental Business (0.066).

Conclusions

The Development Program of the LGUs is significantly correlated to Community Environmental Management Education and Environmental Values and Ethics but not to Environmental Health and Safety and Environmental Business Opportunity. The Techniques on Resource Conservation have negative significant relationship with Community Environmental Management Education and Environmental Values and Ethics but not to Environmental Health and Safety and Environmental Business Opportunity. The Methods of Waste Reduction, Collection, Separation and Recovery have negative significant relationship with Environmental Health and Safety but not to Environmental Health and Safety and Environmental Business Opportunity.

Recommendations

The LGUs can continuously support educational institutions to strengthen the attitudes and values of the people. They can improve security measures to protect the people from unmanaged waste. It can establish business linkages to promote businesses related to waste. Mandatory waste recycling activity should be made as a means to generate income. The LGUs can maintain technical understanding to be integrated in the educational program of learning institutions. Technical measures to prevent contamination of diseases from unmanaged waste should be given to the people. Trainings on product development of waste products should be taught to the community. The LGUs can uphold the educational campaign to increase awareness on methods of waste management. The LGUs can integrate in the barangay health program on the proper segregation of waste. Recycling center can be institutionalized by providing technical and financial assistance to interested private individuals.

<u>PROBLEM NO. 5</u>
Findings

Along reuse and social entrepreneurship, the r values obtained with CEME of household, schools and business and industry, were: -0.014, 0.029 and -0.024, respectively; for EVE, 0.083, -0.017 and -0.195, respectively; EHS, 0.032, -0.025 and 0.000, respectively; and for EBO, 0.067, 0.012 and -0.081, respectively. For recycle and CEME of household, schools and business and industry the r values were: -0.028, 0.086 and -0.035, respectively; EVE, 0.067, 0.071 and 0.254, respectively; EHS, 0.100, 0.069 and -0.065, respectively; and for EBO, 0.031, 0.011 and -0.001, respectively. Along refuse and CEME of household, schools and business and industry, the r values were: -0.025, 0.107 and 0.065, respectively; EVE, 0.068, 0.057 and -0.058, respectively; for EHS, -0.089, 0.088 and 0.030, respectively and for EBO, 0.103, 0.040 and 0.019, respectively. Along reduce and CEME of household, schools and business and industry, the r values were -0.025, 0.107 and 0.065, respectively; EVE, 0.068, 0.057 and -0.058, respectively; EHS, -0.089, 0.088 and 0.030, respectively and EBO, 0.103, 0.040 and 0.019, respectively.

Conclusions

There is significant relationship between Reuse and EVE for business and industry but with negative relationship between CEME in household and business and industry, EVE in schools and business and industry, EHS in schools and EBO in schools and business and industry. There is significant relationship between recycle and EVE in business and industry but there is negative relationship between recycle and CEME in household & business and industry, EHS in business and industry and EBO in schools. There is no significant relationship between refuse and CEME, EHS and EBO for business and industries, households and schools but with negative relationship with CEME in household, EVE in business and industry and EHS in household. There is significant relationship between Reduce and CEME for schools and EVE for business and industry but there is negative relationship between CEME in household, EVE in business and industry and EHS in household.

Recommendations

LGUs can legislate an ordinance in support of the ESWMP Act requiring product manufacturer to write on the label of products instructions on how to reuse the products. On social entrepreneurship aspect the LGUs in partnership with industry conducts a regular forum to teach consumers on proper reusing of available resources and materials. LGUs can offer permit incentives to entities that encourage customers to buy products with high recyclable contents and provide mutual market for the business component of the practice. LGUs can provide a simultaneous waste program day requiring all barangays of the municipality to conduct "no plastic buy day." LGUs can post notices at strategic places and utilize websites to continuously educate the people on the practice of reduce.

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The analysis of the Professional Development Needs of Teachers in Private Commercial and Technological Colleges in North East Thailand

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Abstract

This research is an analysis of the professional development needs of teachers in Commercial and technological Colleges in North East Thailand. The populations in this research all administrators and the teachers of 9 private commercial and technology colleges, attached to the Office of Private Education Commission, the academic year 2012, consisting of 115 administrators and 408 teachers, its totals 523 persons. The study used the descriptive method employing questionnaire to find answers to the statement of the problems. The respondents of the study were 27 administrators and 86 teachers of the selected private commercial and technology colleges in North East Thailand. The t-test was used to determine the significant difference that exists between analysis of the administrators and teachers on the needs for professional development of teachers. Most of the respondents are male and in their middle age, academically qualified, who have been the teaching professional for quite sometime and has focused and managed special trainings in the field of business and technology. Administrators suppose to it need to teachers to under graduated professional development in areas of knowledge, skills and attitudes more than the teachers themselves. Teachers and administrators have comparative opinion that teachers need professional development in knowledge and skills, although administrators revealed that teachers want professional development in their opinion s more than the teachers viewed it between themselves. Teachers concentrate in business have related opinion with that of teachers specializing in business technology. The findings and conclusions situation, the researcher proposed that administrators of vocational schools should undergo accommodate studies mainly in the areas of business and technology therefore the updated with the latest development in the education process. Therefore, teachers should be support by administrators to follow modify studies to keep them side by side of the development in business education and technology. The business owner and administrators of special professional development programs which concerns in development of their knowledge, skills and attitudes. This study should be reproducing by future investigators using a different set of respondents in other regions of Thailand.

Key Words: professional development, lecturer quality, administration development

1. Introduction

In the global day and highly competition education system of Thailand, Colleges must be prepared to meet the challenges continuously and also in tomorrow, if colleges still want to survive and grow, Thus there is training is very importance for staffs such as administrators and teachers. Since training increases the skills and ability of teacher to perform special jobs, management particularly needs it because it need to get the best out of the every teacher in their payroll.

For educators approach to professional development is merely from" let's have the workshop" models. This traditional concept of what was and is still refereed to in some school district as "in service training" has severe limitations not in scope but also in effectiveness, Rather, the concept of "professional development" address the real needs of educational organizations. The evolution of this approach is mirrored in all social institutions.

From the past, there has been a myriad of research on professional development. Most of this research has centered on identifying those variables that produce effective professional development programs, As a consequence of this research, many models have been created. As a school administrators evaluated and supervise its employees- the teachers, staff and non-teaching personnel, in order to improve its services to the public, professional development programed become a vehicle throng which these teacher can enhances their skills and remedy deficiencies to render better services to the client.

Conceptual Framework

The quality developments of teachers to private vocational schools to sufficient tools need to improve the working efficiency of teachers and to develop their skills and knowledge continuously. To having required abilities, teacher may become bored and inaction and their expertise may deteriorate, therefore job rotations, training sections and seminars should be provided to teachers in order to improve their skills and to update their knowledge for their working efficiency.

According to the outlook of social development, the provision of vocational education may be effect. In north east of Thailand, for example, it is obvious that competitions among vocational schools are considerably high; as a result, many schools have applied different strategy to support the administration of work and have different technologies to achieve the quality and efficiency of professional development in schools. Some schools have emphasized the development to upgrade the knowledge, abilities, skills, mental qualities of teachers so that they will be able to implement the policy correctly. According to all the data, only 50 percent of the teachers have been development. In private schools, problems of educational quality are found, for example, the educational achievement is lower than the target and the direct responsible people for this are teachers. Teacher development is extremely necessary because the obtained experience enable teachers to solve problems at the right time.

Among components of vocational education provisions, teachers are the cores in vocational education management and development. It is thus necessary to develop procedures, to help operates acquire suitable abilities and to able to work more efficiency in accordance to the technical and technological changes.it is accepted that among 4 management, human resources are the most important ones because “ man” gathers other resources for management purposes. Therefore, personnel has the required knowledge and abilities, the organization will definitely have opportunities to manage its work efficiency, for this reason, every organization will definitely have opportunity to manage its work efficiency.

2. Literature reviews

Most of people join an organization not simple for a job, but as a means to develop their career in some other professional capacity. Human resources professional have plans for specific professional development activity with quality program, customer contract, task force and other mainstream activities (Walker, J., & Bechet, T, 1991).Individual should participate in such programs to address identified professional needs. The responsibility of the development training is to create an optimal learning situation in which the learner can obtain the particular skills and knowledge identified as a necessary for accomplishing the learner’s present and the future jobs. The development of staff in any organization considered as indispensable and exigent. People’s kills and knowledge becomes obstacle if they cannot update them. The updated developments of computers in particular, create the need for continued retaining.

There are two principal methods by which people can obtain knowledge, skills and attitude to become competent member of an organization. The most important is the formal training; the other is through educational courses. Some of organizations recognize periods of formal training; these can be in the form of sabbatical, executive development programed outside of the school. The education activities are need in the total process of human growth and development. The professional development is dynamic element of process of developing employees. Training is provided to help improve the job-related skills obtain knowledge that will help them to improve their performance and future organization targets. Educational development is provided so that the teachers can expand their capacity to organization (Lloyd L.Byars& Leslie W. Rue,2004) After training needs to determined, objectives must be established for meeting those methods.

According to Lucas, 2000, “Even in institution with centralized professional development programs; nobody is as close to action and as aware of the needs of individual teachers. Professional development is the means by which chairs ensure proper alignment between teacher interest and needs on the other hand and institutional and development priorities.

When it comes to professional development, the principal's mission is unpatrolled. Principal see the teachers in their department with regularity: They are the best position to identify and determine how to meet the needs of individual teachers. They are the person who must make program that attended to individual teacher need and institutional demands.

According to Razik, Taher, and Swanson &Austin. (2001) the best way to increase learning g is through improved teaching; therefore, improved teaching can be enhanced through personal and professional development activities- a well-planned faculty development program grounded on the needs of teachers.

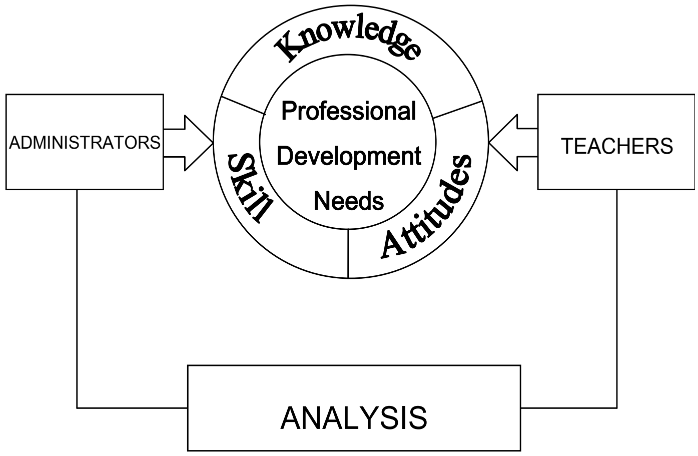
But are our teacher informed about the new ideas, development that would enhance professional knowledge and practices in a development program. Principles always mandate attendance at professional workshops and seminars but still the responsibility of acquiring a new ideas, practices, materials and improving one's teaching rests with the teachers. Also personnel and professional development activities have issues to consider such as knowledge of the professional activities is limited and the information about the state of professional development in education is not updated. That is do they understand whether and how continuous learning effect teacher's performance and student achievement. For given a wide range of personnel and professional activities in different formats like graduate courses, attending conferences and joining professional organizations.

Payne and Wolfon,2000 state that "teacher are very willing to learn new strategies and techniques but are frequently prevented from doing so because of time constraints lack of funds or the absence of administrative support"

3. Methodology

This research is the narrative type target to study of professional development in private commercial and technical colleges attached to office of Private Education Commission in north east of Thailand. This research used to descriptive method. This method tries to expand on the professional development in private Commercial and Technological colleges in north east of Thailand .The decretive research involves analysis of highly applied in this research.

The population in this research are the administrators and the teachers of 9 private commercial and technology colleges, attached to the Office of Private Education Commission, the academic year 2012, consisting of 115 administrators and 408 teachers, its totals 523 persons.



Research instrument and techniques

This study made use of the questionnaire as the main source of data from the school administrators and teachers of Commercial and technological Collages in North east of Thailand. The questionnaire which is attended to analyses from the responses which includes age., gender, length of service, educational questionable qualifications and number of training attended and conducted for the last 2 years both administrators and teachers. The second part is an extent of the respondents' perception on the needs of teachers for professional development. Area of specialization of teachers was also determined.

Data Gathering Procedure

The researcher collect the data for this research from June to September 2012.The discussion is presented following.

Table 1 Population and Sample Distribution

Private Education Institution	Administrators		Teacher	
	Population	Sample	Population	Sample
1. Northeastern Technology School. (Khon Kaen)	30	5	143	24
2. Northeastern Technology and Commercial School.	6	2	12	4
3. Northeastern Technology School.	6	2	12	4
4.Phong Pinyo Technology School.	6	2	17	6
5.Phol Panichakan Technology School.	18	3	87	16
6.Chumphae Business Technology School.	9	2	18	6
7.Technology Vocational Business School.	14	4	34	9
8.Khon Kaen Business Administration School.	10	3	27	7
9.Khon Kaen Commercial School	16	4	58	10
Total	115	27	408	86

Table 2
frequency Distribution of Respondents' Age

Age	Administrators		Teachers		Total	
	f	%	f	%	f	%
Below 30	5	18.5	22	25.6	27	23.9
31-40	10	37	41	47.7	51	45.1
41-50	9	33.3	21	24.4	30	26.6
above 50	3	11.1	2	2.3	5	4.4
Total	**27**	**100**	**86**	**100**	**113**	**100**

Legend : f-frequency

Table 3
frequency Distribution of Respondents' Gender

Gender	Administrators		Teachers		Total	
	f	%	f	%	f	%
Male	12	44.4	46	53.5	58	51.3
Female	15	55.6	40	46.5	55	48.7
Total	**27**	**100**	**86**	**100**	**113**	**100**

legend : f-frequency

Table 4
frequency Distribution of Respondents' Length of Service

Length of Service	Administrators		Teachers		Total	
	f	%	f	%	f	%
5 years and less	2	7.4	36	41.9	38	33.6
6 - 10	6	22.2	24	27.9	30	26.5
11 -15	5	18.5	9	10.5	14	12.4
16 - 20	4	14.8	4	4.7	8	7.1
21 - 25	10	37	6	7	16	14.2
more than 25	0	0	7	8	7	6.2
Total	**27**	**100**	**86**	**100**	**113**	**100**

legend : f-frequency

Table 5
frequency Distribution of Respondents' Educational Qualification

Educational Qualification	Administrators		Teachers		Total	
	f	%	f	%	f	%
Bachelor's Degree	3	11.1	51	59.3	54	47.8
w/Master's Units	0	0	27	31.4	27	23.9
Master's Degree	15	55.6	6	7.6	21	18.6
w/Ph.D. Units	2	7.4	2	2.3	4	3.5
Doctor's Degree	7	25.9	-	-	7	6.2
Total	**27**	**100**	**86**	**100**	**113**	**100**

legend : f-frequency

Table 6

frequency Distribution of Respondents' Number of trainings Attended

Number of Trainings Attended	Administrators		Teachers		Total	
	f	%	f	%	f	%
less than 5	0	0	56	65.1	56	49.55
5 - 10	12	44.4	24	27.9	36	31.85
more than 10	15	55.6	6	7	21	18.6
Total	**27**	**100**	**86**	**100**	**113**	**100**

Table 7
frequency Distribution of Respondents' Number of trainings Organized

Number of Trainings Organized	Administrators		Teachers		Total	
	f	%	f	%	f	%
less than 5	3	11.1	57	66.3	60	53.1
5 - 10	18	66.7	25	29.1	43	38.1
more than 10	6	22.2	4	4.7	10	8.8
Total	**27**	**100**	**86**	**100**	**113**	**100**

Table 8
Frequency Distribution of Respondents' Area of Specialization

Area of Specialization	f	%
Technology	22	25.6
Business	64	74.4
Total	**86**	**100**

Table 9
Respondents' Perception on the Extent of Professional Development Needs of Teachers in Private Commercial and Technological Colleges in Khonkaen Thailand

Professional	Administrators		Teachers		Average	
Development Needs	Mean	Int.	Mean	Int.	Mean	Int.
Knowledge	3.69	GE	2.45	SE	2.75	ME
Skills	3.91	GE	2.37	SE	2.74	ME
Attitudes	3.97	GE	2.34	SE	2.73	ME
Over-all Mean	**3.86**	GE	**2.39**	SE	**2.74**	ME

Legend: *4.51 - 5.00 - Very Great Extent (VGE); 3.51 - 4.50 Great Extent (GE);*
2.51 - 3.50 Moderate Extent (ME); 1.51 - 2.50 Slight Extent (SE); 1.00 - 1.50 No Extent (NE)

Table 10
Differences in the Perception of Administrators and Teachers on the Extent of the Professional Development Needs of Teachers

Professional Development Needs	Respondents	Mean	s	t	Sig	Decision on Ho
Knowledge	Administrators	3.69	0.23	3.487	0.064	Accepted
	Teachers	2.45	0.29			
Skills	Administrators	3.91	0.30	0.020	0.886	Accepted
	Teachers	2.37	0.30			
Attitudes	Administrators	3.97	0.21	9.513	0.003	Rejected
	Teachers	2.34	0.35			
Over-all	**Administrators**	**3.86**	**0.18**	**2.555**	**0.113**	**Accepted**
	Teachers	**2.39**	**0.24**			

Table 11
Differences in the Perception of Teacher Respondents on the Extent of their Professional Development Needs when Grouped According to their Specialization

Professional Development Needs	Specialization	Mean	s	t	Sig	Decision on Ho
Knowledge	Technology	2.42	0.31	0.132	0.718	Accepted
	Business	2.47	0.29			
Skills	Technology	2.54	0.26	0.663	0.418	Accepted
	Business	2.32	0.31			
Attitudes	Technology	2.29	0.39	0.001	0.973	Accepted
	Business	2.36	0.34			
Over-all	**Technology**	**2.42**	**0.29**	**1.289**	**0.259**	**Accepted**
	Business	**2.38**	**0.22**			

The computed t-value for the professional development needs of teachers in term of "attitudes" is 0.001 with the significant value of 0.973 such significance value is gather than 0.05 level of significant which lead to the acceptance of the null hypothesis. This is taken to mean that when teachers are grouped according to their specialization, no significant difference exist in their perception with regards to their professional development needs in respect to their attitudes. Teachers in both specializations need professional development in terms of their attitudes to slight extent.

The overall computed t-value is 1.289 with the significance value of 0.259. Since the significance value is grater than 0.05 level of significant. The null hypothesis is acceptance meaning that when teacher are grouped according to their area specialization, no significant difference exist in their perception with regards to their professional development needs such a result is indicative of the fact that even though teachers are in the field of business or in their fields technology, their professional development needs are similar particularly un knowledge, skills and attitude development.

Conclusion and future recommendations

The extent of the professional development needs of teachers in private commercial and technological colleges in North east of Thailand. It was perceived by the administrator respondents that "knowledge", "Skills" and " attitudes" are need to great extent for professional development of teacher in private commercial and technology college in north east of Thailand with the mean values of 3.69,3.91 and 3.97 respectively while according to the teachers themselves, it was to a slight extent only with the mean value2.45 respectively.

The difference in the perception of administrators and teachers on the professional development needs of teachers in private commercial and technological college in north eat of Thailand that on knowledge t-value is 3.487 with the significant value 0.064 since significant value is greater than the 0.05 significance level the null hypothesis is accepted giving no significant difference in the perception of the administrators and teachers themselves on the extent of professional development needs of teachers particularly on their knowledge.

The skill that was know t-value is 0.00 with the significance value of 0.886.since the significance value is greater than the 0.05 significance level, the null hypothesis is accepted giving no significant difference in the perception of the administrators and teachers themselves on the extent of the professional development needs of teachers particularly on their skills.

The attitudes was 9.513 with the significance value of 0.003 since the significance value is less than the 0.05 significance level, the null hypothesis is rejected giving a significant difference in the perception of the administrators and teachers themselves on the extent of professional development needs of teachers particularly on their attitudes.

The difference in the perception of teacher respondents on the extent of their professional development needs when they are grouped according to their specialization. The first on the computed t- value is 0.132 with the significance value of 0.718.since the significance value is greater than the 0.05 level significance, the null hypothesis is accepted. The means that there is no significance difference in the perception of the teachers who are in the technology fields and teachers who are in the business fields as their area of specialization with regards to the extent of their professional development needs in terms of their knowledge. The skills as t-value is 0.663 with the significance value of 0.418.since the significance value is greater than the 0.05 level significance, the null hypothesis is accepted. The means that there is no significance difference in the perception of the teachers who are in the technology field and teachers who are in the business field as their professional development needs in terms of their skills. Therefore attitudes were computed t-value is 0.001the perception of the teachers who are in the business field as their area of specialization with regards to the extent of their professional development needs in terms of their attitudes.

Based on the findings of this research, the researcher arrived at the following occlusions

- Most of the respondents are male and in their middle age, academically qualified, who have been in the teaching profession for quite sometime and has attended and organized different trainings in the field of business and technology.

- Administrators deemed it necessary for the teachers to undergo professional development in areas of knowledge, skills and attitudes more than the teachers themselves.
- Teachers and administrators have relative option that teachers need professional development in knowledge and skills, though administrators revealed that teachers need professional development in their attitudes more than the teachers viewed it among themselves.
- Teacher's specializations in business have similar opinion with that of teachers specializing in technology.

Recommendation

Based on the findings and conclusion stated the respondent recommend as following

- Teachers should be encouraged by these administrators to graduate studies to keep then abreast of the development business education and technology, administrators of vocational schools should be undergo graduate studies particularly in the business and technology so that they updated with latest trend in the educational process.
- The owner and administrators of different vocational school in north eat of Thailand should develop a concrete programs for professional development of teachers particularly in the area knowledge, skills and attitudes considering it application benefits.
- Teachers themselves should avail of the different professional development programmer which concerns the improvement of the knowledge skills and attitudes.
- This research should be replicated by future researches using different set of respondents in other region of Thailand.

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Impact of Product Attributes on Customer Value - A Study of the Hong Kong Property Industry

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Abstract

Housing historically has an important role in the economic development of Hong Kong. During the last 40 years, Hong Kong has evolved as one of the most prosperous property markets in the world. The influx of foreign investors from China and other countries has resulted in rocket-rising of property pricing, particularly in the luxury housing sector. Any organization that is able to offer customers a product of superior customer value will gain competitive advantage. The perceived value of premium properties has significant impact on customers' affective commitment, and is one of the most tangible signs of a brand's ability to satisfy future consumptions. Property developers, therefore, are keen to understand customer preferences with reference to the key product attributes that enhance the perceived value of premium properties. This research aims at identifying the key property attributes that have significant impacts on perceived property value in the Hong Kong context. The value hierarchy model is adopted to form the research constructs and the impact of six key product attributes, namely design, infrastructure, property management services, branding, relations, and attraction on perceived value and purchase intention. This study provides a systematic framework for value creation analysis. The findings will provide insights for the property developers to formulate product strategies, to plan product offerings to address buyer's needs, and to gain competitive edge over their competitors.

Keywords: Property, Product Attributes, Perceived Value

Background

Housing historically has an important role in the economic development of Hong Kong. During the last 40 years, Hong Kong has evolved as one of the most prosperous property markets in the world. Currently the investors' influx from the Mainland China and other countries purchase properties for residential and investment purpose has resulted in rocket-rising of property pricing particularly the luxury housing and accounts for 11% of the GDP for Hong Kong in 2012.

Any organization that is able to offer a product of superior customer value will gain competitive advantage (Woodruff, 1997). The perceived value of luxury properties has significant and positive impact on customers' affective commitment (Aurier and N'Goala, 2010), and is one of the most tangible signs of a brand's ability to satisfy future consumptions. Property developers, therefore, are required to understand the customers' preferences and to identify the key product attributes for enhancing customer perceived value, so as to generate business revenues.

Recent research reveals the importance of a framework for monitoring and evaluating place marketing and place development (Gertner, 2011). However, there are few studies relating to the customer perceived value of the luxury property market in Hong Kong context which is considered as a highly speculative market with a high percentage of China investors. There are also limited studies that provide in-depth analysis of premium property and facility management as a key product determinant to enhance a luxury branding and customer perceived value. Therefore, in this project, we aim at understanding the property's attributes that have significant impacts on branding and customer perceived value creation in the Hong Kong context, and therefore provides a more systematic framework for the developers to formulate the product strategy and product offering to address the needs of the buyers in the luxury housing sector.

Literature Review

Enhanced perceived value implies more affective attitudes towards the brand, which positively impacts affective commitment (Johnson et al., 2006). Property attributes will enhance customer perceived value and brand identity, and premium property and faciliy management services have significant impacts on customer value and purchase intention. This research focuses on product strategies, branding theories, and customer value theories. The literature and developments in these areas form the skeleton for the formulation of constructs and the research framework for this study.

Business organizations aim to create and provide value to customers. Any organization that is able to offer customers a product of superior customer value will gain competitive advantage. Woodruff (1997) suggests that customer value can be examined and studied with the value hierarchy model analyzing the linkage of customers' desired value and satisfaction.

Kolter and Keller (2012) define a product, which may be a physical good, services, experience, events, persons, place, properties, organization, information, or idea, offers in a market for attention, acquisition, use, or consumption that satisfies a need. Customers will judge the offering by three basic elements: 1) product features and quality, 2) services mix and quality, and 3) value-based pricing. They further deliberate value proposition as a set of benefits that the company offers to customers to satisfy their needs which is a combination of products, services, information, and experiences. The value of luxury properties is attributed by the functional and emotional benefits against the various cost elements the customer pays in exchange for needs fulfilment. The offering will be successful if the product or service delivers best value and satisfaction.

Perceived quality is the consumers' assessment of a product's overall excellence and it is the product and service features that contribute to perception of high quality for luxury properties. Perceived value is a vital catalyst for stimulating consumer purchase intention as it shows one's willingness to purchase a product and his/her assessment of alternative options based on preference, experience, and external factors (Schiffman & Kanuk, 2000). The purchase intention of customers comes from the consumers' perception of benefits and values acquisition, and it is an important element for predicting consumer purchase behavior (Chi, et al., 2009).

Commerce prioritizes branding in merchandising generally and branding is considered as important for luxury goods. Roulac (2007) therefore considers that a property value is determined by three components: brand, beauty, and utilty. Viitanen (2004) identifies four key factors for value creation for the property industry: 1) images evoked by the real estate; 2) premises themselves; 3) physical and operational functionalities; and 4) performance. These factors form the key evaluation criteria for purchasers in assessing the property developers.

Ashworth (2009) advises that place branding creates uniqueness and competitive brand value, and further suggests that it is a strategic approach for the delivery of amenities for image improvement and economic growth. Hankinson (2004), while analyzing branding issues in the property industry, suggests four branding perspectives: 1) perceptual entities; 2) communicators; 3) relationships; and 4) value enhancers. Similarly, Kotler et al. (2002) propose four distinct strategies for building competitive advantages in the property industry:

- Design
- Infrastructure
- Basic services
- Attractions

Sirdeshmukh (2002) suggests that customer value regulates the behavioral intentions of loyalty toward the service provider. Similar remarks are made by other scholars, who agree that there is a direct relationship between perceived value and purchase intention. The theories in customer perceived value and place branding have proposed different consideration for customers of premium properties. Most of these researches originate from the western world. There are few researches on the property market in the Hong Kong context, which is featured by the huge number of Chinese buyers and investors. This study adopts an integrated view of perceived value and place branding. It aims at identifying the key product determinants of value creation in one of the most speculative luxury segment in the property market.

Research Objectives and Research Questions

Hong Kong, a diversified East-meet-West cultural community and in close geographical proximity to the world's fastest growing economy - China, attracts investors around the world to invest in the local property market. By focusing on the luxury property marketing, this study aims at the identification of the key product attributes of local properties that have significant impact on the perceived value of customers. It is based on the following research objectives:

- To identify the product attributes for adding product value for customers
- To identify the key determinant attributes as the differentiators for customer value creation
- To analyze the impact of the product differentiators on customer value creation

To determine whether premium property and related management services are critical to customer value creation, the investigation is focused on various questions that address the niche market segment of premium properties in Hong Kong: What property attributes will enhance customer perceived value? Will premium property and facility management services have significant impacts on the creation of customer value and stimulation of purchase intention? The research aims at providing answers to the following research questions:

- What are the product attributes that significantly influence perceived property value and purchase intention?
- Is premium property management service critical to customer value creation?
- What are the key service components within the bundled property and facility management service package?

Research Framework and Hypotheses

The value hierarchy framework is employed in the formulation of the research framework because it allows us to identify and aggregate the value contributed by different product attributes. A holistic and integrated framework is developed with reference to the product attributes that have been proposed by different scholars and practitioners for customer value enhancement, plus the attributes that are identified during the 1st stage of the study by using a focus group study.

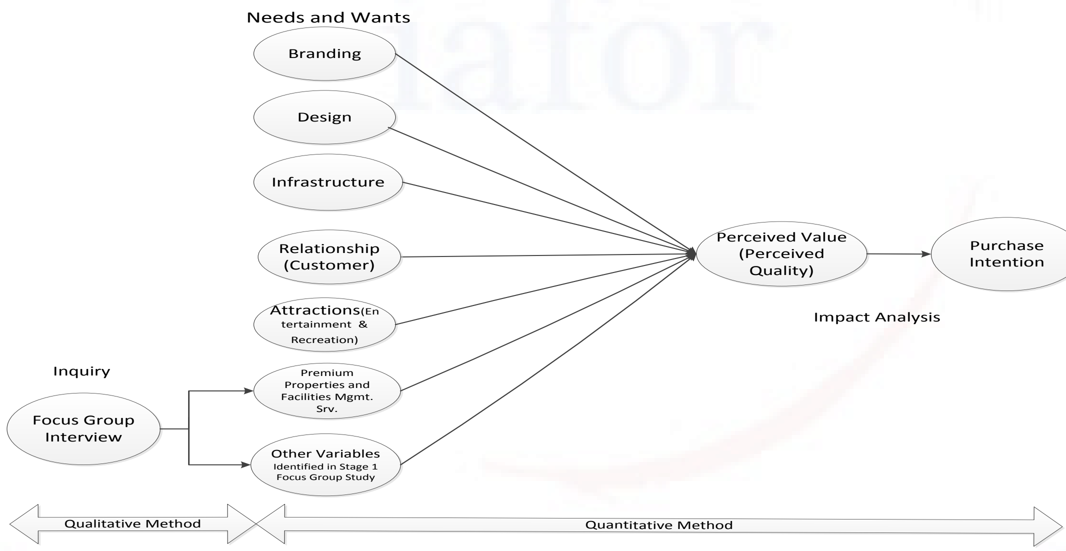

Figure 1. The Research Framework

Six product attributes, namely branding, design, infrastructure, services, relations, and attractions are selected, plus the attributes that are identified during the initial stage of qualitative analysis. We aim at determining the relevance of these attributes (independent variables) to the perceived property value and purchase intention (dependent variables).

The research framework is depicted in Figure 1. The proposed research framework guides the overall research activities, including questionnaire development, data analysis, hypotheses testing and validation. During the 2nd stage of the study, a quantitative approach is also employed to study the impact of various factors on perceived property value and purchase intention. The following hypotheses are proposed in this study:

H1: Facility management service has a significant positive influence on the perceived value of the property.
H2: The design elements of the property have a significant positive influence on the perceived value of the property.
H3: The branding of the property has a significant positive influence on the perceived value of the property.
H4: The infrastructure of the property has a significant positive influence on the perceived value of the property.
H5: Customer relationship management has a significant positive influence on the perceived value of the property.
H6: Attraction and recreation features of the property have a significant positive influence on the perceived value of the property.
H7: The perceived value of the property has a significant positive influence on purchase intention.

Research Strategy & Methods

The research strategy adopted in this study includes a mixture of positivist and interpretivist approaches to better reflect the pragmatism research philosophy. For this purpose, a sequential mix methods research approach is employed in this study. During the 1st stage of the study, a focus group interview is used to identify the product attributes as the key differentiators for value enhancement. During the 2nd stage of the study, a survey using a sample of 100 respondents is used to test and validate the research model proposed for this study.

- Stage 1: Qualitative Approach (Focus Group Interviews): Classification into Themes and Categories

- Stage 2: Quantitative Approach (Survey): Testing and Validation of the Research Framework.

In the focus group study, subject matter experts will participate in the study to explore customer preferences and purchase considerations as the key product differentiators of premium properties. By using a structured questionnaire in the quantitative study, we aim at investigating the impact of the product attributes on perceived property value and purchase intention. The structured questionnaire is designed to collect demographic data and relevant information on product attributes, perceived property value and purchase intention. It is developed using a 7-point Likert scale to measure the impact of property attributes on perceived property value and purchase intention. The questionnaire will be sent to showroom visitors, new purchasers and existing tenants using a random sample of 100 respondents. The statistical Package for Social Science (SPSS) is used for data analysis. The selected methods of data analysis include descriptive statistics, principal component analysis, regression and correlation analysis.

Contributions

The rapid economic development of China attracts people from mainland China to purchase or invest in offshore luxury housing. There are limited researches relating to customer preferences of the new group of purchasers in this niche market segment. With the limited researches on premium services as the product differentiator for customer value creation, this study provides in-depth understandings on the determinants of perceived property value, and identifies the key facility and management service components for luxury properties. It enables the product planners and marketers to formulate marketing strategies, and design specific product features with premium services as the key product differentiator for effective brand building.

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A study on the Strategic Management of TK Education Center

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Abstract

Based on the theories on strategic management and differentiation, this article conducted a SWOT analysis of TK education center against the results from the environment audit following PEST models. Surveys to all the major stakeholders, together with the information on the rivals led to the understanding of the Key Success Factor for international education institutions in current China. In the end recommendations on the HR management strategy for TK education center to differentiate itself was raised

Key Words: Strategic management, KSF, differentiation

1. International high school education in China

With the gradual deepening of global economic integration and the fast growth of China differentiation's economy, more and more parents are demanding higher standard education for their children. At the same time, China's opening-up policy resulted in many foreigners coming to China to work, who also demand good education for their children. Following this development, some top level education institutes worldwide have entered China and started to run international schools, including such well-known private school in UK as Harrow School and Oxford High School etc.. Guangzhou as one of China's costal open areas in particular attracted quite a number of international education institutes, which offer international high school education to Chinese and foreign children..

According to the course content, international education programs can be categorized into the International Baccalaureate Diploma Program (IB), Advanced Placement Course (AP) from the USA, A-Level of UK, and Canadian course etc. According to the statistics of International School Connection for September 2011, at present, 21% international schools are offering UK courses, 26.8% schools are offering the USA course, while 32.6% are offering IB or IPC course. In addition, bi-lingual international schools form another type of institutes providing international education. Take AP as an example, data show that during 2009-2011, the number of schools acquiring AP qualifications has increased from 10 to over 180 (Deng Zhongmou, 2012), which makes the course the largest international high school course in China. Due to these factors, competition among international schools is getting tougher. These schools have to understand their environment, be aware of their strength and weakness so as to identify their own way for development and formulate their competitive strategies.

2. Current status and competition pressure of TK Education Center

TK Education Center is a training institute under Hong Kong's TK Education Group, which is operating as an international high school education provider. Different from other international high schools recruiting only foreign students, TK Education Center is permitted to recruit both foreign students and a limited number of local students. The center is planning to further expand its share in domestic market by setting up international high school education programs specifically designed for local senior high school students.

Like all the organizations, it is unavoidable that TK Education Center has also to face tough competition and bear pressure in its course of development. Currently, the pressure on TK Education Center can be summarized as follows:

(1) Competition from same course providers

TK's international education program targeting local senior high school students is based on international university preparatory course of IB, however, in Guangzhou there are already some public schools, private schools and training centers offering this course for some time.

(2) Competition from similar course providers

Other education institutes offering similar courses also have their advantages. Those offering AP course have advantage in sending students to American high schools and universities, those offering A-level course have advantages in sending students to UK universities.

(3) Low industry entry barrier but high demand

The application procedures for operating AP, A-level, and Canadian courses are comparative simpler with lower requirement, while application running IB program is quite difficult with extremely high requirement on the institute.

(4) Threat of new entrants

Establishment of new international courses will further affect the market, cutting TK Education Center's market share. Huangpu Experimental Primary School affiliated to Sun Yat-sen University, and Yajiada International Foundation School are the examples. The latter is a three-year international senior high school and preparatory school for university, which has recently been set up in Guangzhou based on IB course. It started to recruit students this year, providing IB preparatory course study for the first year, IB program for the second and third year. It only recruits 60 Junior III and Senior I students.

In an uncertain competition environment, managers must find a strategy that will allow them to compete effectively (Gareth R. Jones *et. al*., 2000). Under current situation, TK Education Center has to conduct an environment review, and resources audit, so as to be able to develop its competitive strategy.

This study is to conduct a series surveys on the international education market concerning public and private international high school courses in Guangdong area, as well as the SWOT of TK Education Center, in order to develop the principles and implementation measures for TK Education Center to differentiate itself in competition, to formulate its development strategy, with the aim of helping the center to achieve a sustainable development.

3.Differentiation strategy

Researchers believe an organization can pursue a competitive advantage through differentiation (Thomas S. Bateman & Scott A. Snell, 1996). Based on the background TK Education Center, differentiation strategy should be an appropriate choice. So this study will base its analysis on the differentiation strategy theory, supplemented by SWOT analysis and KSF analysis.

Differentiation strategy is a business strategy in which the SBU offers a unique good or service to a customer at a premium price (Gatewood et. al., 1995). The strategy requests the integration of series actions to provide differentiated products or services to consumers based on their needs. Differentiation strategy targets at consumers who seek products differing from others.

Differentiation strategy targets some unique product attribute that consumers see as advantageous over the attributes of competing products (Mosley *et al*., 1996). To achieve differentiation, an enterprise should be able to produce differentiated products at competitive cost. If differentiated products or services produced by enterprises have no competitiveness in terms of cost, the price of products or services would exceed that customers' acceptance. Hence, a successful enterprise should have a thorough understanding of the value pursued by customers, the priority of different customers, and the additional price that the customers are willing to pay for the difference.

To successfully differentiate, a firm should consider: the target customer; what is valued by them; the competitor, extent of difficulty for competitor to imitate etc. (Gerry Johnson & Kevan Scholes, 1997).

Stephen P. Robbins & Mary Coulter (1999) suggested that in order to pursue differentiation strategy, an organization should attract "highly skilled worker, or creative people". With regard to the aspects for differentiation, Phillip Kotler and Kevin L. Keller (2011)developed the concepts of Point-of-difference and Point-of-parity. The former includes the attributes or benefits consumers strongly associate with a brand, the latter includes the associations that one brand shared with other brands. Don Hellriegel & John W. Slocum Jr. (1995) summarized differentiation content as premium quality, brand image, technological leadership and customer service.

4 Data Collection of the study

In order to study the differentiation of TK education centre, we need to perform an analysis on the internal and external conditions of TK Education Center based on the theories just reviewed.

The internal information for analysis mainly relates to teaching faculty, area, resources, competition strength etc, while rivals information include their course setting, recruitment, students' assessment, parents' views and development status etc. The information is collected through various survey tools.

(1) Questionnaire-based survey

The author has designed three questionnaires for internal and external data collection to acquire first hand information. The first questionnaire was for internal staff of TK Education Center, in terms of administration, teaching resources and competitive strength etc of TK Education Center. Totally 50 questionnaires were distributed and 49 were collected back. The samples selected including 18 foreign and local staff, covering foreign teachers, student consultants, college entrance application tutors, high school course directors etc.

The second questionnaire targeted students currently studying at TK Education Center and their parents, especially those Chinese students holding foreign passport, who also had experience of studying in traditional local schools. The questions focused on the difference between IB program and local traditional course, the reasons for them to shift from local schools to IB program school, requirement of students and parents on the international high school course, troubles and problems in international course study, views regarding the teaching, management and course setting of TK Education Center. Totally 30 questionnaires were issued and 28 were collected.

The third questionnaire was for students studying international courses at other institutes and their parents, to find out their reasons for shifting, reason and willingness. Totally 45 questionnaires were issued and 38 were collected. The purpose was to look for the threats and opportunities to TK Education Center.

(2) Interviews

(a) Internal interview: it was targeted at TK Education Center's faculty, students and their parents. Totally 10 were interviewed covering 5 employees, 3 students and 2 parents.

(b) External interview: interview with students and parents of other international education centers, covering 6 interviewees, including one president of local public school, 3 local parents and 2 local students.

5.Survey Results and Discussion

The SWOT analysis based on surveys results give us some insight on the current situation of TK Education Center.

5.1 Strength of TK Education Center

The major strengths of TK Education Center as revealed by the surveys are summarized as follows.

(1) The superiority of IB Program

The IB program that TK Education Center is offering is an education program recommended by UNESCO. Founded in 1968, International Baccalaureate Organization (IBO) is a non-profit international education organization registered with UNESCO, which provides professional education instructions for 891,000 school-age juniors in 3,110 member schools across 140 countries and regions (Liu Xin, 2012). Under the direction and planning of UNESCO, IB program was designed uniformly for the children of expatriate families and outstanding junior and senior school students all over the world. IB program students follow the same teaching syllabus and participate in uniform examinations. Examination papers and scoring thereof are subject to the arrangement and planning of IBO headquarters. Examination results are issued by IBO headquarters as well. Once a student obtains IB diploma, he or she can apply for the enrollment with thousands of top universities worldwide directly without attending local college entrance exams. When applying for the university enrollment, IB diploma holders only need to get the minimum entrance score released by respective universities. Many universities grant some preferential policies to IB diploma holders, such as the exemption of part or all freshman courses, so the students can start from sophomore direct. Among such universities are Oxford, Cambridge, London School of Economics and Imperial College of UK, Harvard, Yale and Princeton of the USA.

In addition, IB program not only develops academic level but also stresses cultural elements and cares for language background of students from different countries. Thus students from English or non-English speaking countries may pursue the highest academic performance under a fair system and enter famous universities later.

The survey showed that the teaching principles of IB program have been well acknowledged by students and their parents alike, who regard IB programs as completely different from and superior to those traditional teaching. IB program encourages creativity, activity, service and innovation, it also raises students' artistic level, strengthens their continuous exercises, improves their care for others and strengthens their cooperation with others. As students develop themselves over the knowledge learned in books, they also gain a comprehensive development in their character and grow into persons with high sense of citizenship.

(2) Professional, dedicated and high quality faculty

TK Education Center has 10 full-time foreign teachers, all with universities education diplomas and 3-15 years' teaching experiences respectively. Foreign teachers at TK have all gained certificates from the Teachers' Association in USA, or UK or Canada. In addition, they hold Foreign Expert Certificates issued by China's State Foreign Expert Bureau. Foreign language courses are taught by teachers from foreign countries with good experience.

TK Education Center's local staff also have abundant experience in administration and daily operation. They ensure the normal operation of the center. Most surveyees, be staff, parents or students all showed high level of satisfaction towards the faculty and staff of TK Education Center's, and appreciated their high level professionalism and sense of responsibility.

(3) Advanced infrastructure

TK Education Center has state-of-art teaching facilities, including multimedia teaching classrooms, computer rooms, physical labs, chemical labs, music rooms, library, etc., which can cater the education requirement of the IB program.

5.2 Weakness of TK Education Center

The following major weaknesses of TK Education Center have also been identified by the author from the survey.

(1) High demand on students

Many local students find it hard to follow IB courses at the very beginning, which may result in students' frustration. In questionnaire investigation, 65% students stated that language constitutes the largest barrier in IB program study. Since almost all courses are taught in English, they become more difficult, and many students transferred from public schools could not follow the new course contents and find it quite difficult catch up. In addition, students have to write their thesis in English, for which they also have to conduct abundant research to develop convincing arguments.

Therefore, for students with low English level or limited preparation time, IB program can be quite challenging, and may not be helpful for them to develop their own strong points.

(2) High demand on teachers

Different from other international educational programs such as AP, A-level, IB program only provide teaching syllabus with no textbooks designated, so the teachers have to organize their teaching content by themselves following the syllabus. Thus the demand on the teachers is very high, not only in terms of academic level, but also in terms of work capability and workload, which in turn constitute high challenge to IB operators.

(3) High human resources and operation cost

IB program needs top quality teachers, especially foreign teachers. To recruit foreign teachers with experience in international high school courses to teach in China means high cost, which consists of salary similar to those in developed countries, good warfare and free education for their children. A teachers' annual salary varies between 400,000 to 800,000 RMB, in addition there are expensive commercial insurance, excellent accommodation conditions, air tickets of family members from and to their homeland etc. The aggregated cost on each foreign teacher may reach over 800,000 RMB. For these reasons, remuneration for outstanding foreign teachers constitutes the largest expense for running such international course. An IB provider has to recruit a substantial number of students to be able to support such an operation. The pressure is obvious.

(4) Low level of HR management

The surveys exposed some problems in the HR management of TK Education Center, such as the lack of long-term planning in human resources, all the recruitment work is borne by only one officer, the high turnover of teachers which increased human resources cost etc.. What is more, there is a lack of comprehensive and systematic performance review scheme, the performance review indexes are not scientific, thus cannot reflect the real performance of the staff, which led to staff's dissatisfaction and comparative high staff turn over rate.

5.3 Development opportunities for TK Education Center

Based on environmental factors and the strengths and weakness of TK Education Center, there are some opportunities.

(1) Increasing demand for international high school education in China

With China's economic development, more and more students are planning to go abroad to enjoy foreign high school education, or college education, which offers great opportunity for such foreign university preparatory program including IB. Statistics shows that the number of students going to foreign school or university keeps increasing rapidly year by year.

(2) Strong demand for IB course

As indicated by Asia and Pacific Regional Forum on IB program held in 2007, IB program had been developing well in China. Due to the fact that students in China had gained advantages at application for enrollment with famous foreign universities, more and more students would like to do IB program in China. IB program is attracting more and more Chinese students and their parents.

(3) High recognition on TK Education Center in Guangdong area

Together with IB program development, TK Education Center has also expanded its strong influence in the Guangdong area. TK Education Center has now developed a close relationship with local government departments, foreign companies operating in the area, various associations, and famous universities of the world. As the result, the name of TK Education Center is well recognized by the local people. They regard TK Education Center as their prime choice when considering international high school program.

5.4 Threat to TK Education Center

Together with opportunities, there also exist some threats to TK Education Center, which should either be avoided or overcome.

(1) New International classes in public schools
Some domestic high schools are launching international classes. These classes are in general Sino-foreign cooperative programs, which are taught in English. There is no limitation on student sources in recruitment for such program. Students of such program have to complete domestic Chinese courses. But they do not attend China's national university entrance examination. Instead they have to pass AP exam, or A-LEVEL exam, or SAT exam or TOFEL exam to enter foreign universities. So these classes have become the new competitors to TK Education Center. In addition, competition from private education centers offering AP, A-LEVEL etc, also forms a threat.

(2) Competition from current IB education centers
At present there are in total 9 IB education centers in Guangdong, including Guangzhou American International School, Guangdong Biguiyuan IB International School, Guangzhou Nanhu International School, Shenzhen Western English School, Shenzhen Shekou QSI International School, Shenzhen Futian Fangfang Lequ English School, Yudelai International School and Yudelai International School Zengcheng Teaching Area Branch. Among them, Guangdong Biguiyuan IB International School, Shenzhen Western English School and Shenzhen Futian Fangfang Lequ English School are allowed to recruit Chinese students, the rest can only recruit the children of foreigners.

(3) Government policy on high school education
In China, the local students have to learn national curriculum from primary year 1 to

middle school year 9, as this is the compulsory education period in China and students have no choice. In the high school period on the other hand, students can choose to study at a public high school or international program. With China becoming stronger, the government may change the education policy and make high school education compulsory, in that case all the international programs will lose candidates and the risk is very high.

5.5 Development strategy for TK Education Center

Based on the theories reviewed, the above survey results as well as the SWOT analysis, the authors believe that TK education centre can pursue differentiation strategy as its development strategy. As for the POD or aspects for differentiation, product, service and human resources should be the focus, which serve as key success factors for TK Education Center. Of the three factors, human resource management is the most important one.

6. PODs of TK Education Center

In order for TK Education Center to exercise its strengths, it should pursue a differentiation strategy by further developing its product and brand image and providing differentiated service, and improving its HR management.

(1) Product Differentiation

As an education program developed from the UK education system, IB system is regarded by many as the most scientific course, which is aimed at cultivating miscellaneous capabilities of students and promoting students' comprehensive development, thus won acceptance all over the world. But still TK Education Center should make efforts to expand the differences between IB program and its competing programs. Specific recommendations are as follows.

(a) Strengthen comprehensive student cultivation

TK Education Center should further enlarge IB program's aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect. More focus should be placed on developing student capability in life, in particular their operationability in a different culture. Make the teaching more pragmatic, more valuable and more appealing.

(b) Deepen relationship with high-level universities

For the benefit of the students, TK education center should further expand its close relationship with various top level universities, and try to develop new relationship with more universities all over the world, to ensure that most students who graduate from TK Education Center can enter high level universities of their choice..

(c) Obtain more international education accreditation

International accreditation can on the one hand help TK education center to improve its curriculum, staff development, school operation and management, and on the other hand improve TK education center greatly, making the centre more attractive to the students and their parents and more acceptable to universities. International accreditation can attract not only student, parents but high quality staff at the same time.

(d) Improve students IB exam performance

IB exam result is the most important material in students' application for enrollment with world universities. A high IB score means greater opportunities to enter the top level university in the world. TK education center should arrange more courses to improve the students' English level, subject study and thesis writing. It should recruit more experienced IB teachers in order to improve the IB examination result.

(2) Service Differentiation

TK Education Center should further improve its service to students and their parents, better understand the needs and wants of them, and satisfy them with outstanding service in various ways, so as to retain its image of an outstanding education institute..

(a) Improve tri-party communication

TK Education Center should develop closer tri-party relationship among students, teachers/staff and parents. Regular tri-party meetings attended by teachers, parents and students should be organized to facilitate the communication among them. Keep parents informed of their children's life and study at the school, encourage parents to join hands with the school to help students develop.

(b) Practice total service management

Total service management means all the facilities and work should be student oriented. All the staff should regard themselves as part of a servant to the students, all the facilities should be at the service of the students. TK Education Center should keep its teaching facilities and conditions first rate in Guangdong area and available to the students all the time.

(c) Strengthen Sino-foreign exchanges

TK Education Center should create more opportunities for the exchange between TK Education Center's Chinese students and foreign students, as well as the exchange between Chinese staff and foreign staff. This will help them to better understand each other's culture, which may entail their classroom performance and real life performance.

(d) Implement all stage assistance

Support to students should start from the very beginning when a student enters TK Education Center When the students first come to the center, assistance should be provided for them to improve their English level through extra language courses etc. Teachers should assist the new students to make friends and get used to the study in the new environment. During their study period, assistance should be provided for them to solve various problems in course understanding, assignment writing etc. At the time of their application for university study, assistance should be provided for them in selecting majors and universities, and in applying for scholarship etc..

(3) Human resources management Differentiation

TK Education Center shall further expand its HR differentiation in terms of teaching staff background, skill and capability etc. The quality of the teaching teams of other international program providers are varied, some are high qualified but some are very poor, and some institutes recruit local domestic Chinese teachers. For the purpose of becoming a first-class education institute and differentiation, it is necessary for TK Education Center to ensure that all teachers hold relevant qualifications and have rich experience, the key certificates should include the foreign expert certificate and foreigner working certificate. In addition, TK Education Center must ensure that all teachers recruited are from those countries with English as the mother tongue, and it should never recruit local teachers for the teaching of IB.

6. Recommendations for TK Education's HR differentiation

To realize TK Education Center‘s differentiation strategy, it should make efforts in the author present some recommendations. Of all the aspects for differentiation, the HR management differentiation should be the priority, which is a key success factor for the center. At present, TK Education Center should focus its work on HR management differentiation. For this reason, the author raised some recommendations.

(1) HR resource system overhaul

It is necessary for TK Education Center to do a human resources system overhaul Work out its human resources plan based on its development strategy, short-term, mid-term and long-term targets, internal and external conditions to ensure the availability of required quality and quantity of human resources and make it distinctive from others.

(2) Recruitment panel establishment

TK Education Center should set up a professional recruitment panel and a standard process to improve its recruitment quality and efficiency. The recruitment panel should be headed by the president, which should be comprised of department directors, board members and human resources director etc,. In this way collective wisdom can be used in selecting teachers to ensure that only qualified and appropriate teachers and staff are recruited, thus reduce the turnover of the teachers and staff.

(3) Training intensification

TK Education Center should strengthen its prior--job and on-job training, providing professional before-the-job training to all the new teachers recruited to enable them to experience and familiarize Chinese culture as well as the course design, teaching mode, class management, and student performance assessment etc..

TK Education Center should cultivate the sense of belonging and acknowledgement of teachers to the Center. Encourage and assist teachers to attend international forums, seminars or workshops on IB teaching organize regular on job training at the centre on organizational culture, IB teaching methodology, and pedagogical philosophy. Provide financial aid to teachers participating further education.

(4) Assessment system renovation

Improve teacher assessment system and performance reward assessment system to ensure that the assessment is simple, measurable, consistent, reliable and comparable. In the meantime, adopt proper assessment methods for staff of different levels and at different positions. Combine personal performance reward system and teamwork performance reward system, motivate the faculty to exercise their full capacity with high teaching quality. Grant teamwork reward to encourage the staff cooperation and joint efforts, and help staff's concurrent development with the Center.

(5) Remuneration system optimization

TK Education Center should further improve its remuneration and benefits system, optimize the remuneration structure of intermediate managers, teachers and other staff to formulate a fair, just and reasonable working system which can integrate the staff targets with the center's strategic development target, so as to realize a win-win result.

7. Significance of the study

This study focuses on TK Education Center. But many of the findings of the study fit the situation of other international high school education institutes. Thus many of the results of this study can be applicable to them. Most international high school education institutes in China bear big names and enjoy strong financial resources. Together with the nature of top quality of international programs, differentiation strategy may be the primary choice for many of the international high school education providers, the only difference lying in their way of differentiation and SODs, as well as their measures for achieving their differentiation. In this sense, this article is of reference to the whole international high school education industry in China.

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Risk Disclosure, Risk Management, and Bank Value-at-Risk: International Study

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Abstract

Using hand-collected data on top 100 banks around the world from 2007 to 2011 with global financial crisis and ongoing Eurozone sovereign debt crisis, this paper empirically assesses bank level estimates of Value-at-Risk (VaR) and investigates how VaR risk disclosure, internal risk management, and corporate governance shape bank VaR. The trend of either risk disclosure index or risk management index has been increasing over period 2007-11, implicating that global banks have devoted to not only increasing their risk information disclosure within their annual report; but also enhancing internal risk control to avoid the adverse risk effect form systemic risk. Our empirical evidences also indicate that banks with higher quality of both risk disclosure and risk management significantly reduce 90%, 95%, and 99% VaR estimates, respectively. Surprisingly, larger board size and higher institutional holdings would be incremental to bank VaR estimates, implying the possible agency problem. Specifically, banks with higher Tier1 Capital Ratio in a country with stringent strength of credit significantly mitigate bank VaR. However, higher executive compensations of bank and institutional holdings conditionally enhance bank VaR.

Keywords: Risk Disclosure; Risk Management; Value-at-Risk (VaR); Public-Listed Comercial Bank

JEL classification: G21, G28, G32

1. Introduction

Since both the ongoing Eurozone sovereign debt crisis and the 2007-2011 global financial crisis, the imperative to enhance bank's risk disclosures on financial instruments and internal risk profile seems to be more apparent based on the global perspectives form stringent banking supervision. Even though risk disclosure requirement from Basel committee in 1998 has been initiated to disclose more and better risk information in the banking sector, however, mandatory risk disclosure is still focused on market risk primarily related to financial instruments and derivatives. The risk disclosures addressed concurrently in global banking should be more comprehensive to include dynamic risk information on credit, liquidity, market and hedging activities. Therefore, this paper empirically investigates how risk disclosure of Value-at-Risk (VaR) and the quality of internal risk management affects bank performance during the recent financial crisis in context of public-listed banks around the world.

VaR have been advocated to quantify market risk in response to capital requirements for large banks by USA and international banking authorities since the *Market Risk Amendment to Basle Accord* in 1996. In addition, VaR has become a very standard measure of financial market risk, which intensively utilized by both financial and even non-financial firms. Besides, Perignon and Smith (2013) initially create *VaR Disclosure Index* (hereafter, VarDIS) to proximate and measure the quality of VaR disclosure by banks. In USA, market risk disclosure are required under *Financial Reporting Release Number 48* (FRR48) first published by the US Securities and Exchange Commission (SEC) in 1997. These practices cast an important framework on bank risk management where best accurate risk management for bank is requested for practice and useful risk disclosure information for regulatory authority.

However, there is few empirical literature related to the impacts of risk disclosure and risk management on bank VaR for global listed banks. For recent financial crisis, some listed banks were inspected by the regulations of authority. Moreover, earlier literature on risk management mainly focused on single types of risk while missing out on the interdependence to other risks (Miller, 1992). Research about VaR DIS, internal risk management and disclosure is sparce in explaining how these risk factors during recent financial crises really influences bank performance. This paper attempts to exam risk disclosure and risk management of global listed banks before, during, and after global financial crisis.

Based on the motivation mentioned above, this paper has their research objectives as follows: First, risk disclosure index is composed of comprehensive risk measures including VaR, financial instrument, and credit risk in bank. Second, risk management index is consisted in the number of internal risk control including corporate governance in bank. Tird, the joint impacts of risk disclosure and internal risk management on bank VaR is empirically investigated under consideration of potential endogeneity from risk management decision on risk disclosure and risk control.

Our major contribution in this paper different from Pérignon and Smith (2010), risk disclosure index would cover not only VaR disclosure but also financial instrument and credit risk in bank. We also verify the accuracy of the disclosed VaR figures reported by bank. Regardless of how much information banks provide about their VaR, disclosure is only useful if the VaR numbers themselves are accurate while VaR is ‘‘related to actual performance” (Greenspan, 1996). Following Perignon and Smith (2013), the backtesting test is applied to check the number of VaR exceptions disclosed by banks, which corresponding to its expected value which is 2.5 per year with a 1-day/99% VaR.

Based on the risk management index constructed by Ellul and Yerramilli (2013) for US banking holding company, we would apply this index to evaluate the validation in the international public-listed banks. Different from Ellul and Yerramilli (2013) focusing on US study, this paper presents the international evidence on the joint impacts of risk disclosure and internal risk management on bank risk using bank’s VaR as downside risk measure.

2. Related Literature

2.1 Risk Disclosure

In the US, market risk disclosures are required mandatory for all public filers that make material use of derivatives (not just banks) under FRR 48 published by the US Securities and Exchange Commission (1997). Moreover, Hirtle (2003) shows that US banks’ quarterly market risk charges contain valuable information about future risk exposures (see also Liu et al., 2004; Bali et al., 2007; Taylor, 2007; Alexander and Sheedy, 2008). Barth et al. (2012) focus on credit risk, and provide evidence that disclosures of retained interests are positively associated with banks' credit risk as measured by their credit ratings and bond spreads. However, Linsmeier and Pearson (1997) indicate that VaR disclosure is, along with tabular presentation and sensitivity analysis, one of the three reporting methods described in FRR 48. Well-known consequence of this multi-format disclosure environment is that VaR public disclosures are not mandatory for all 10-K filings as long while an alternative quantitative disclosure format is used.

2.2 Risk Management and Corporate Governance

For risks to be successfully managed, they must first be identified and measured. As highlighted by Stein (2002), the organizational structure of the risk management function seems to be crucial in determining how effectively qualitative and quantitative information on risk is shared between top managers and the individual business segments. Earlier literature on risk management most focused on single types of risk while neglecting the interdependence to other risks (Miller, 1992). A strong risk management function should be essential to correctly identify risks and prevent such excessive risk-taking (Kashyap, Rajan, and Stein, 2008; Stulz, 2008), which cannot be controlled entirely by regulatory supervision or external market discipline. Some other aspects of corporate governance in banks, such as board characteristics and CEO (Chief Executive Officer) pay and ownership, have been addressed in a few recent academic studies (e.g., Beltratti and Stulz, 2013; Erkens et al., 2010; Fahlenbrach and Stulz, 2011; Minton et al., 2010).

However, the literature on corporate governance and the valuation effect of corporate governance in financial firms is still very limited. Some papers contribute to the large literature that examines risk-taking by banks, such as Keeley (1990), Demsetz and Strahan (1997), Demsetz, Saidenberg, and Strahan (1997), Hellmann, Murdock, and Stiglitz (2000), Demirgüç-Kunt and Detragiache (2002), and Laeven and Levine (2009), by examining how the strength and independence of the risk management function affects risk-taking. Finally, some papers are also related to the small, but growing literature on the corporate governance of financial institutions, which examines the impact of board characteristics and ownership structure on bank performance and risk-taking (e.g., see Beltratti and Stulz, 2009; Erkens, Hung, and Matos, 2012; Minton, Taillard, and Williamson, 2010).

Chief Risk Officer (CRO) and risk governance in the banking industry has been more generally highlighted in the newspapers, in various reports (Brancato et al., 2006), as well as in practitioner-oriented studies (Banham, 2000), unfortunately it has been largely neglected in the academic literature so far. In recent, Ellul and Yerramilli (2013) investigate whether a strong and independent risk management is significantly related to bank risk taking and performance during the credit crisis in a sample of 74 large US bank holding companies. They construct a Risk Management Index (RMI) which is based on five variables related to the strength of a bank's risk management, including a dummy variable whether the bank's CRO is a member of the executive board and other proxy measures for the CRO's power within the bank's management board.

Regarding the risk governance, Fama and Jensen (1983) and Jensen (1993) argue that agency costs in large organizations can be reduced by separating decision management from decision control, and that the board of directors is only an effective device for decision control if it limits the decision discretion of top managers. However, the majority of empirical studies find no significant difference in valuation between firms with separated and firms with combined CEO/chairman positions (e.g., Brickley et al., 1997; Dahya and Travlos, 2000; Schmid and Zimmermann, 2008). Besides, Brickley et al. (1997) conclude that the costs associated with a breakup of a combined position are larger than the benefits for the majority of firms.

2.3 Value-at Risk (VaR)

The recent worldwide financial crisis has dramatically revealed that risk management pursued by financial institutions is far from optimal. This paper proposes to illustrate an economic evaluation of the impact of model uncertainty on VaR estimates based on a back-testing framework. The VaR are used in asset management policies as well as micro-prudential regulations in both Banking (Basel II) and Insurance (Solvency II). This extreme risk measure serves to fix the required capital (Pillar I of Basel II regulation) and to monitor the risk by means of internal risk models (Pillar II of Basel II regulation). Risk estimates are thus used to determine capital requirements and associated capital costs of financial institutions, depending in part on the ex post quality of the recent VaR forecasts.

VaR methods in this study are selected with current practice on commercial banks. In recent international survey of VaR usage, Pérignon and Smith (2007) show that

Historical Simulation (HS) is at the heart of most VaR models currently in use at commercial banks. They find that 73% of the firms that disclose their VaR methodology in their 2005 annual reports use HS or related techniques. HS is a basic and non-parametric technique that forecasts future potential price changes using actual shocks on state variables that occurred in the past (Christoffersen, 2004; Pritsker, 2006; Campbell, 2006; Jorion, 2006).

VaR estimation has been fully discussed in the literature (see Gibson et al., 1999; Talay and Zheng, 2002). Particularly, Pritsker (1997) is one of the first to discuss the estimation risk for VaR in the identically and independently distributed return setting which has the same setting with the Expected Shortfall proposed by Inui and Kijima (2005). Later, Lönnbark (2010) quantifies the uncertainty due to the estimation by forecasting multiple period VaR. Actually, banks might be inclined to underestimate their VaR in order to reduce their market risk charge (Lucas, 2001) or to decrease the quality of its risk management system (Daníelsson et al., 2002). Conversely, in their theoretical analysis of VaR-based capital requirements, Cuoco and Liu (2006) conclude that VaR-based capital requirements can be very effective in inducing truthful revelation of market risk. While many (conflicting) theoretical models of the accuracy of VaR are available in the literature, little is known on the accuracy of disclosed VaRs. We intend here to contribute to fill this gap.

3. Data and Method

3.1 Data Sources

The primary data source on sample bank in this paper is from *Mergent Online* database (www.mergentonline.com) which covers broad-defined financial information on banks worldwide. Banks in our sample would be selected both because of the availability of balance sheet and income statement data in Bankscope, as well as the availability of stock price data from *Datastream* database. Moreover, the number of board of directs, independent directors, derivatives used for both trading and hedging, large-scale M&A activity, and corporate governance would be hand-collected from the annual report or webpage. Data on bank corporate governance would include CEO compensation. Appendix A1 demonstrates distributive sample on top 100 public-listed banks for empirical study.

3.2 Empirical Specification

We would like to examine whether bank that had strong and independent risk disclosure and management functions in place had lower VaR (downside or tail risk), after controlling for the underlying risk of the bank's business activities. Accordingly, we estimate the following panel regressions over 2007 to 2011 periods.

$$VaR_{i,j,t} = \alpha + \beta \times RDI_{i,j,t} + \gamma \times RMI_{i,j,t} + \sum \delta \times CG_{i,j,t} + \sum \pi \times Z_{i,j,t} + \theta \times Year_t + \mu \times Country_j + \varepsilon_{i,j,t}$$

In the above equation, *i* denotes the bank, *j* stands for country, and *t* denotes the year. Our main independent variable of interest focuses on the bank's both RDI (risk disclosure index) and RMI (risk management index), defined the next two sections. Further, CG stands for the number of corporate goverance variables including total compensations, board size, independent board ratio, and institutional holdings in empirical estimation. We also control for bank characteristics, year and country dummies are included in all specifications. The standard errors are robust to heteroskedasticity and clustered at the bank level.

VaR is the independent variable defined as follows: VaR (ρ) is the empirical ρ-percentile of the trading revenue distribution. For instance, with a sample of 100 observations, the VaR(1%) is given by the 5th smallest trading revenue. Based on Jorion (2006), VaR is defined as the pth lower tail percentile of trading revenue over the next *h* periods $R_{t,t+h}$, formally $p = \Pr(R_{t,t+h} < VaR_{t+h|t})$, and has become a standard market risk measure. Our VaR approach is based on the GARCH model, showing the desirable feature of removing clusters in the VaR exceptions. We rely on the simplest possible GARCH specification, which is a GARCH(1,1) model with a basic mean equation:

$$R_t = \alpha + \varepsilon_t$$
$$\sigma_t^2 = \beta_0 + \beta_1 \varepsilon_t^2 + \beta_2 \sigma_{t-1}^2$$
$$VaR_t^{GARCH} = -(\hat{R}_t - 2.33 \times \hat{\sigma}_t)$$

Figure 1 presents the estimated Value-at-Risk (VaR) of 90%, 95%, and 99% for selected top bank including Deutsche Bank (Germany), BNP Paribas (France), Banco Santander SA (Spain), Banco Santander SA (Spain), and Industrial & Commercial Bank of China (China). It is clear that VaR shows significantly higher over the period 2008 to 2009 and also relatively high in the 2011. We also find few VaR exceptions using GARCH approach.

Finally, we control for important bank characteristics that may affect bank risk, including financial characteristics such as Tier1 Capital Ratio, Cost Ratio, Equity /Total Assets, and ROE, and country characteristics like GDP growth rate and strength of credit.

3.3 Risk Disclosure Index (RDI)

Our risk disclosure index mainly include six components of VaR and three exposures self-reported in bank's annual report: (1) VaR characteristics (holding period and confidence level), (2) summary VaR statistics (high, low, average, year-end VaR, VaR by risk category, and diversification effect), (3) summary information about the previous year's VaR, (4) histogram or plot of daily VaRs, (5) definition of trading revenues (hypothetical revenues and non-inclusion of trading fees) and histogram or plot of daily trading revenues, (6) backtesting (number of exceptions, i.e., days when actual trading loss is greater than VaR, and explanations of these exceptions), (7) Credit risk exposures, (8) foreign exchange rate exposure, and (9) interest rate exposures. Appendix A2 shows the detailed explanation.

3.4 Risk Management Index(RMI)

Our risk management index include the following nine variables: (1) CRO Present: A dummy variable that identifies whether the company's has a designated Chief Risk Officer (or an equivalent designation, such as Chief Credit Officer, Chief Lending Officer, or Chief Compliance Officer) with an enterprise-wide remit. (2) CRO Executive: A dummy variable that identifies whether the CRO (or the official with an equivalent designation) is an executive officer. (3) CRO Top5: A dummy variable that identifies whether the CRO (or the official with an equivalent designation) is among the five highest-paid executives. (4) CRO Centrality: Ratio of the CRO's total compensation, excluding stock and option awards, to the CEO's total compensation. When the company's has a CRO who does not figure among the five highest-paid executives, we calculate CRO Centrality based on the compensation of the fifth highest-paid executive, and subtract a percentage point from the resultant ratio. In the case in which banks do not report having a CRO, we define CRO Centrality based on the total compensation of the Chief Financial Officer (CFO) if available; if CFO compensation is not available, then we compute CRO Centrality based on the compensation of the fifth highest-paid executive, and subtract a percentage point from the resulting ratio. (5) Risk Committee Experience: A dummy variable that takes the value of one if at least one of the independent directors serving on the board's risk committee has prior banking and financial industry experience, and zero otherwise. (6) Freq. Meetings of Risk Committee: The number of times the company's board risk committee met during the year. (7) Active Risk Committee: A dummy variable that takes the value of one if the frequency with which the company's board risk committee met during the year is higher than the average frequency across all companies during the year, and zero otherwise. (8) Quality of Oversight: Equals the simple average of the dummy variables Risk Committee Experience and Active Risk Committee. (9) Reports to Board: A dummy variable that identifies whether the key management-level risk committee (usually called the ''Asset and Liability Committee") reports directly to the bank's board of directors, instead of to the CEO. Therefore, RMI could be computed as the first principal component of the following six risk management variables: CRO Present, CRO Executive, CRO Top5, CRO Centrality, Risk Committee Experience, and Active Risk Committee. Alternatively, robust RMI also could be calculated as the first principal component of the following seven risk management variables: CRO Present, CRO Executive, CRO Top5, CRO Centrality, Risk Committee Experience, Reports to Board, and Active Risk Committee. Appendix A3 presents the detail definition on these variables.

Figure 6 displays the yearly average RDI and RMI over the period 2007–2011, RDI is significantly increasing since most countries force theri commercial banks to publicly disclosure VaR-related information in their annual reports. We also find the RMI shows steadily increasing during this period.

4. Empirical Results

4.1 The Impact of Risk Disclosure on VaR

Table 3 provides stronger evidences that higher quality of risk disclosure in VaR leads to the decreases in Bank's VaRs with respect to 90%, 95%, and 99%. In addition, there is evidence that larger board size lead to increases in bank's downside risk. A concern with our evidence is that some theories predict that bank risk could fall as board size increases while the number of board is high enough. However, we find no significant impacts of total executive compensations and institutional holdings on bank's VaR.

In summary, banks with higher quality of risk disclosure and independent board ratio significantly decline their VaRs. However, larger board size economically enhance bank VaR, but executive compensations and institutional holdings show no effects on bank VaR. The result is very similar to the finding from 90% VaR. Some of control variables are also robust to show that bank with higher Tier1 Capital Ratio in a country with stringent strength of credit significantly reduce bank VaR.

4.2 The Impact of Risk Management on VaR

Table 4 reports the estimates from regressions in which the dependent variable is used alternatively for VaR of 90%, 95%, and 99%, namely. To capture bank's downside risk, we control for bank level of Tier1 capital ratio, cost ratio, equity/total assets, ROE, and country level of GDP growth rate and strength of credit, and year and country fixed effects in all specifications. The *t*-statistics are based on robust standard errors clustered by bank. In the model (1) of Table 4, using 90% VaR, we find that the Risk Management Index (RMI) is negatively related to the VaR. This is consistent with better internal risk control to mitigate bank downside risks. However, we also recognize that fewer forced CEO departures can be consistent with weaker monitoring. In model (2), the coefficient on the total compensations is significantly positive, indicating that as the fraction of executive compensations rises, risk-taking incentives turnover to bank's downside risks also rises. The similar finding also shows the impact of board sizes on bank VaR in model (3), indicating larger boards are positively associated with the higher VaR, as a result of possible agency problem by indiders. Surprisingly, in model (4) our primary findings for boards with a greater proportion of independent directors could mitigate the bank VaR. Conversely, mode (5) shows the positive effect of institutional holdings on increasing bank downside risk.

Overall, Banks with higher quality of risk management and independent board ratio significantly lower their VaRs. However, larger board size, higher executive compensations and institutional holdings economically enhance bank VaR.

4.3 Joint Impacts of Risk Disclosure and Risk Management on VaR

We further investigate whether there is a complementary effect of risk management and risk diclosure in motitgating bank's downside risk. Table 5 reports the strong and consistent evidence that both internal risk control and risk disclosure significantly decrease bank's VaR of 90%, 95%, and 99%, respectively. All the coefficients of total compensations, board size, and institutional holdings are significantly positive in all specifications, implying higher total compensations, larger board size, and higher institutional holdings motivate bank's VaR.

Hence, banks with higher quality of both risk disclosure and risk management significantly reduce VaR estimates in terms of 90%, 95%, and 99%, respectively. Larger board size and higher institutional holdings would inversely increase bank VaR estimates .

5. Concluding Remarks

Using hand-collected data on top 100 banks around the world over 2007 to 2011 with global financial crisis and ongoing Eurozone sovereign debt crisis, this paper empirically assesses bank level estimates of Value-at-Risk (VaR) and investigates how VaR risk disclosure, internal risk management, and corporate governance shape bank VaR. We find that the trend of either risk disclosure index or risk management index has been increasing over 2007 to 2011, implicating that global banks have devoted to not only increasing their risk information disclosure in their annual report and but also enhancing internal risk control to avoid the adverse risk effect.

Our empirical evidences also indicate that banks with higher quality of both risk disclosure and risk management significantly reduce 90%, 95%, and 99% VaR estimates, respectively. Surprisingly, larger board size and higher institutional holdings would be incremental to bank VaR estimates, implying the possible agency problem. Specifically, banks with higher Tier1 Capital Ratio in a country with stringent strength of credit significantly reduce bank VaR. However, higher executive compensations of bank and institutional holdings conditionally enhance bank VaR.

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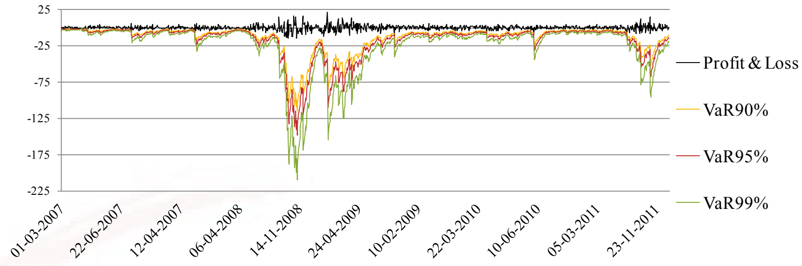
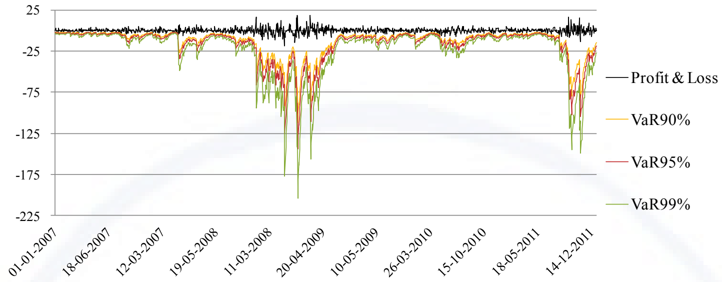
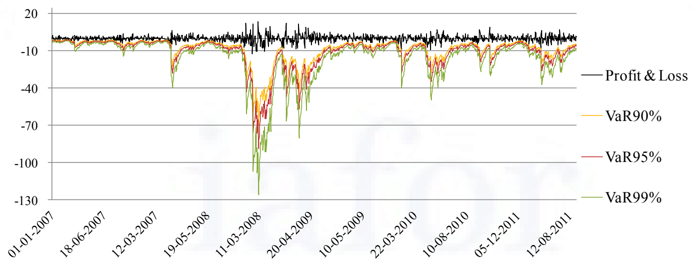


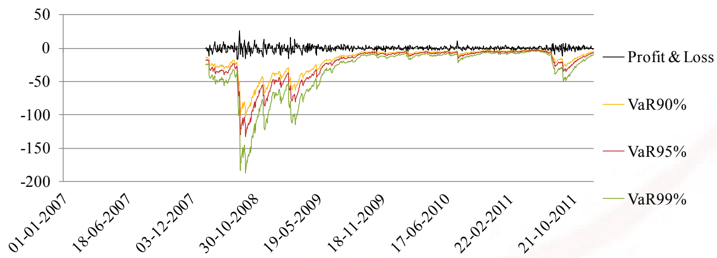
A. Deutsche Bank (Germany)



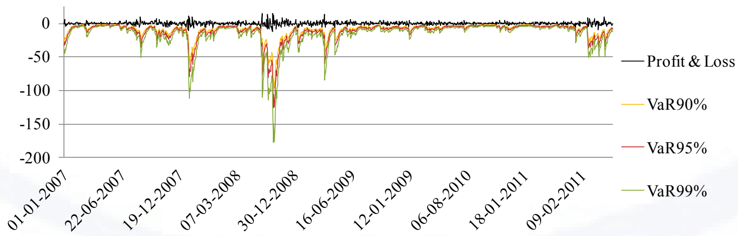
B. BNP Paribas (France)



C. Banco Santander SA (Spain)



D. Banco Santander SA (Spain)



E. Industrial & Commercial Bank of China (China)

Figure 1 Estimated Value-at-Risk (VaR) of 90%, 95%, and 99%

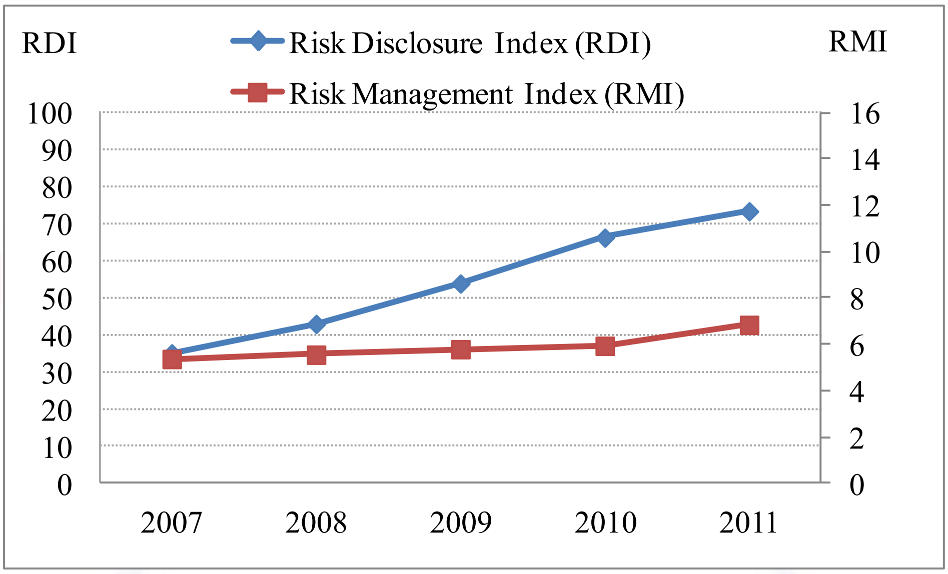


Figure 2 The evolution of Risk Disclosure Index (RDI) and Risk Management Index (RMI) from 2007 to 2011

Table 1

Descriptive Statistics

Variables	Observations	Mean	Median	SD	Min.	Max.
Panel A: All sample						
VaR90%	500	-2.169	-0.287	4.985	-17.316	0.045
VaR95%	500	-2.734	-0.341	6.308	-21.885	0.020
VaR99%	500	-3.845	-0.424	8.930	-30.971	-0.028
Risk Disclosure Index (RDI)	500	60.390	63.962	43.267	0	100.182
Risk Management Index (RMI)	500	4.232	0.349	10.817	0	102.136
Ln(Total Compensations)	500	12.539	13.717	2.787	3.555	17.492
Ln(Board Size)	500	2.581	2.666	0.470	0	3.401
Independent Board Ratio	500	0.289	0.286	0.294	0	1
Institutional Holdings	500	0.384	0.356	0.280	0	1
Tier1 Capital Ratio	500	11.238	10.175	5.917	-2.800	67.640
Cost Ratio	500	55.973	53.587	28.361	15.751	503.124
Equity /Total Assets	500	6.532	6.016	3.324	-13.714	23.835
ROE	500	8.218	11.579	24.406	-314.850	56.711
GDP Growth Rate	500	1.940	1.550	4.853	-13.333	13.605
Strength of Credit	500	6.306	7.000	2.069	3	1

Table 2

Correlatoion of Variables

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
(1)	VaR90%	1														
(2)	VaR95%	0.9997*	1													
(3)	VaR99%	0.9998*	0.9996*	1												
(4)	Risk Disclosure Index (RDI)	-0.1572*	-0.1570*	-0.1566*	1											
(5)	Risk Management Index (RMI)	-0.2155*	-0.2149*	-0.2147*	0.1729*	1										
(6)	Ln(Total Compensations)	-0.002	-0.002	-0.0019	-0.0209	0.0446	1									
(7)	Ln(Board Size)	-0.0261	-0.0256	-0.0252	0.2388*	0.0959*	-0.1779*	1								
(8)	Independent Board Ratio	-0.0437	-0.0429	-0.0421	0.0946*	-0.0103	-0.2243*	0.1151*	1							
(9)	Institutional Holdings	0.0285	0.0286	0.0287	-0.0344	0.0033	0.02	0.0404	-0.0457	1						
(10)	Tier1 Capital Ratio	-0.3143*	-0.3143*	-0.3144*	0.054	0.0089	0.1253*	0.1706*	-0.1226*	0.0066	1					
(11)	Cost Ratio	0.0099	0.0115	0.0135	0.1012*	0.0008	0.1413*	0.1025*	0.0167	-0.0166	0.0373	1				
(12)	Equity /Total Assets	-0.1493*	-0.1492*	-0.1491*	0.006	0.1194*	0.0587	0.0826	-0.0723	-0.028	0.4562*	-0.0981*	1			
(13)	ROE	0.1016*	0.0998*	0.0978*	-0.0469	-0.0325	-0.0738	-0.0213	-0.0805	-0.0187	0.0069	-0.3544*	0.1939*	1		
(14)	GDP Growth Rate	0.0797	0.0784	0.0771	-0.1571*	0.0027	-0.2548*	0.0161	0.0273	-0.0771	-0.1199*	-0.2034*	-0.0387	0.2956*	1	
(15)	Strength of Credit	-0.0826	-0.0832	-0.0836	-0.0022	-0.0928*	0.1299*	-0.0701	0.0221	-0.0087	-0.1696*	0.0478	-0.3356*	0.0059	-0.0936*	1

Note: * indicated the significance at 5%.

Table 3 The Impact of *Risk Disclosure* on Bank Value-at-Risk (VaRs)

Variables	VaR90%					VaR95%					VaR99%				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Constant	4.182***	3.077**	1.055	1.386	1.368	5.310***	3.921**	1.348	1.761	1.739	7.528***	5.573**	1.924	2.502	2.470
	(8.026)	(2.865)	(0.816)	(1.110)	(1.095)	(8.108)	(2.869)	(0.819)	(1.105)	(1.090)	(8.195)	(2.860)	(0.820)	(1.099)	(1.084)
Risk Disclosure Index (RDI)	-0.017***	-0.016***	-0.018***	-0.018***	-0.018***	-0.021***	-0.021***	-0.023***	-0.022***	-0.022***	-0.030***	-0.029***	-0.033***	-0.032***	-0.032***
	(-4.955)	(-4.875)	(-4.963)	(-5.140)	(-5.206)	(-4.979)	(-4.903)	(-4.985)	(-5.165)	(-5.233)	(-4.965)	(-4.892)	(-4.969)	(-5.148)	(-5.216)
Ln(Total Compensations)		0.106	0.131	0.111	0.111		0.133	0.166	0.140	0.140		0.187	0.233	0.198	0.197
		(1.427)	(1.758)	(1.478)	(1.470)		(1.418)	(1.749)	(1.474)	(1.465)		(1.409)	(1.738)	(1.467)	(1.459)
Ln(Board Size)			0.782***	0.827***	0.814***			0.995***	1.051***	1.035***			1.412***	1.490***	1.467***
			(6.651)	(6.934)	(6.535)			(6.532)	(6.805)	(6.423)			(6.371)	(6.640)	(6.277)
Independent Board Ratio				-0.100**	-0.098**				-0.125**	-0.123**				-0.174**	-0.172**
				(-3.017)	(-2.965)				(-3.040)	(-2.984)				(-3.056)	(-2.996)
Institutional Holdings					0.002					0.002					0.003
					(1.728)					(1.752)					(1.787)
Tier1 Capital Ratio	-0.254***	-0.259***	-0.269***	-0.274***	-0.274***	-0.322***	-0.328***	-0.341***	-0.347***	-0.347***	-0.456***	-0.465***	-0.483***	-0.493***	-0.493***
	(-6.890)	(-6.817)	(-7.492)	(-7.436)	(-7.394)	(-6.938)	(-6.877)	(-7.563)	(-7.504)	(-7.461)	(-7.020)	(-6.967)	(-7.669)	(-7.603)	(-7.559)
Cost Ratio	0.015**	0.014**	0.012**	0.012***	0.012***	0.019**	0.018**	0.016**	0.016***	0.016***	0.027**	0.025**	0.023**	0.023***	0.023***
	(3.092)	(3.640)	(3.697)	(4.749)	(4.729)	(3.159)	(3.729)	(3.786)	(4.885)	(4.857)	(3.242)	(3.839)	(3.893)	(5.048)	(5.007)
Equity /Total Assets	-0.137*	-0.142*	-0.145**	-0.144**	-0.143**	-0.172*	-0.179*	-0.183**	-0.181**	-0.180**	-0.242*	-0.252*	-0.258**	-0.255**	-0.252**
	(-2.674)	(-2.710)	(-3.263)	(-3.142)	(-3.096)	(-2.684)	(-2.720)	(-3.286)	(-3.166)	(-3.120)	(-2.681)	(-2.716)	(-3.288)	(-3.171)	(-3.126)
ROE	0.031***	0.031***	0.031***	0.030***	0.030***	0.039***	0.039***	0.039***	0.038***	0.038***	0.055***	0.055***	0.055***	0.053***	0.053***
	(5.250)	(5.337)	(6.108)	(6.162)	(6.177)	(5.303)	(5.383)	(6.150)	(6.182)	(6.199)	(5.345)	(5.415)	(6.170)	(6.175)	(6.193)
GDP Growth Rate	-0.028*	-0.015	-0.018	-0.018	-0.016	-0.037*	-0.020	-0.024	-0.024	-0.022	-0.053*	-0.029	-0.035	-0.035	-0.032
	(-2.422)	(-0.879)	(-1.043)	(-1.132)	(-1.079)	(-2.358)	(-0.910)	(-1.071)	(-1.164)	(-1.113)	(-2.262)	(-0.919)	(-1.076)	(-1.169)	(-1.118)
Strength of Credit	-0.415***	-0.435***	-0.434***	-0.428***	-0.427***	-0.527***	-0.552***	-0.551***	-0.544***	-0.542***	-0.748***	-0.783***	-0.781***	-0.772***	-0.769***
	(-24.613)	(-62.859)	(-86.693)	(-74.959)	(-85.458)	(-24.443)	(-62.518)	(-87.720)	(-81.602)	(-95.779)	(-23.473)	(-55.618)	(-77.819)	(-78.038)	(-91.982)
Controlling for year fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controlling for country fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
Adjusted R^2	0.160	0.163	0.167	0.170	0.170	0.160	0.163	0.167	0.170	0.170	0.160	0.163	0.167	0.170	0.170

Note: *, **, and *** indicated the significance at 10%, 5%, and 1%, respectvely. The parentheses stands for the *t*-statistics based on robust standard errors clustered by bank.

Table 4 The Impact of *Risk Management* on Bank Value-at-Risk (VaRs)

Variables	VaR90%					VaR95%					VaR99%				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Constant	3.663***	2.172	0.381	0.798	0.772	4.651***	2.773*	0.496	1.019	0.986	6.596***	3.949*	0.718	1.451	1.404
	(5.593)	(2.123)	(0.325)	(0.714)	(0.682)	(5.667)	(2.132)	(0.332)	(0.714)	(0.683)	(5.763)	(2.137)	(0.338)	(0.713)	(0.681)
Risk Management Index (RMI)	-0.101***	-0.103***	-0.105***	-0.106***	-0.106***	-0.127***	-0.129***	-0.133***	-0.133***	-0.133***	-0.180***	-0.183***	-0.188***	-0.189***	-0.189***
	(-7.851)	(-7.777)	(-7.895)	(-7.513)	(-7.618)	(-7.834)	(-7.761)	(-7.874)	(-7.495)	(-7.601)	(-7.838)	(-7.769)	(-7.878)	(-7.501)	(-7.607)
Ln(Total Compensations)		0.147*	0.171*	0.145*	0.145*		0.186*	0.216*	0.183*	0.183*		0.262*	0.305*	0.259*	0.258*
		(2.244)	(2.595)	(2.215)	(2.199)		(2.227)	(2.576)	(2.204)	(2.188)		(2.211)	(2.556)	(2.191)	(2.175)
Ln(Board Size)			0.655***	0.724***	0.709***			0.832***	0.919***	0.900***			1.181***	1.303***	1.276***
			(6.253)	(6.895)	(6.555)			(6.145)	(6.751)	(6.421)			(5.978)	(6.561)	(6.246)
Independent Board Ratio				-0.125*	-0.122*				-0.156*	-0.153*				-0.219*	-0.215*
				(-2.720)	(-2.643)				(-2.723)	(-2.643)				(-2.722)	(-2.640)
Institutional Holdings					0.003*					0.003*					0.005*
					(2.167)					(2.169)					(2.170)
Tier1 Capital Ratio	-0.271***	-0.277***	-0.287***	-0.293***	-0.293***	-0.343***	-0.351***	-0.363***	-0.371***	-0.371***	-0.486***	-0.498***	-0.515***	-0.526***	-0.527***
	(-7.322)	(-7.339)	(-7.917)	(-7.976)	(-7.914)	(-7.368)	(-7.400)	(-7.986)	(-8.043)	(-7.980)	(-7.451)	(-7.495)	(-8.095)	(-8.147)	(-8.081)
Cost Ratio	0.013*	0.011**	0.010**	0.010**	0.010**	0.016*	0.015**	0.013**	0.013**	0.013**	0.024*	0.021**	0.019**	0.019**	0.019**
	(2.611)	(2.997)	(2.794)	(3.986)	(3.883)	(2.667)	(3.065)	(2.855)	(4.080)	(3.968)	(2.738)	(3.150)	(2.929)	(4.193)	(4.069)
Equity /Total Assets	-0.085**	-0.092**	-0.093**	-0.091**	-0.089**	-0.107**	-0.116**	-0.117**	-0.115**	-0.112**	-0.149**	-0.162**	-0.164**	-0.160**	-0.157**
	(-3.006)	(-2.800)	(-3.737)	(-3.299)	(-3.208)	(-3.028)	(-2.811)	(-3.775)	(-3.336)	(-3.243)	(-3.033)	(-2.807)	(-3.794)	(-3.360)	(-3.264)
ROE	0.028***	0.027***	0.027***	0.026***	0.026***	0.035***	0.034***	0.034***	0.033***	0.033***	0.048***	0.048***	0.048***	0.046***	0.046***
	(6.561)	(6.385)	(6.748)	(5.929)	(6.043)	(6.592)	(6.375)	(6.670)	(5.819)	(5.931)	(6.611)	(6.351)	(6.576)	(5.698)	(5.809)
GDP Growth Rate	-0.003	0.015	0.015	0.014	0.017	-0.004	0.018	0.018	0.017	0.020	-0.007	0.024	0.023	0.022	0.027
	(-0.240)	(1.393)	(1.284)	(1.359)	(1.569)	(-0.305)	(1.245)	(1.154)	(1.225)	(1.422)	(-0.347)	(1.115)	(1.040)	(1.104)	(1.288)
Strength of Credit	-0.436***	-0.465***	-0.464***	-0.457***	-0.456***	-0.553***	-0.590***	-0.589***	-0.581***	-0.578***	-0.785***	-0.836***	-0.836***	-0.824***	-0.820***
	(-16.431)	(-26.448)	(-20.022)	(-20.319)	(-20.801)	(-16.620)	(-27.094)	(-20.366)	(-20.801)	(-21.319)	(-16.711)	(-27.933)	(-20.873)	(-21.491)	(-22.097)
Controlling for year fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controlling for country fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
Adjusted R^2	0.186	0.192	0.195	0.199	0.200	0.185	0.191	0.195	0.199	0.200	0.185	0.191	0.194	0.199	0.199

Note: *, **, and *** indicated the significance at 10%, 5%, and 1%, respectvely. The parentheses stands for the *t*-statistics based on robust standard errors clustered by bank.

Table 5 The Joint Impacts of Risk Disclosure and Risk Management on Bank Value-at-Risk (VaRs)

Variables	VaR90%					VaR95%					VaR99%				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Constant	4.351***	2.986**	0.548	0.905	0.884	5.523***	3.805**	0.707	1.154	1.128	7.830***	5.409**	1.017	1.643	1.605
	(8.206)	(2.999)	(0.442)	(0.752)	(0.733)	(8.214)	(2.991)	(0.447)	(0.750)	(0.731)	(8.235)	(2.971)	(0.451)	(0.747)	(0.728)
Risk Disclosure Index (RDI)	-0.013**	-0.012**	-0.014**	-0.014**	-0.013**	-0.016**	-0.015**	-0.018**	-0.017**	-0.017***	-0.023**	-0.022**	-0.025**	-0.024**	-0.024***
	(-4.189)	(-4.241)	(-4.331)	(-4.564)	(-4.588)	(-4.219)	(-4.281)	(-4.360)	(-4.599)	(-4.626)	(-4.206)	(-4.271)	(-4.346)	(-4.583)	(-4.610)
Risk Management Index (RMI)	-0.092***	-0.094***	-0.096***	-0.097***	-0.097***	-0.115***	-0.118***	-0.122***	-0.122***	-0.122***	-0.163***	-0.167***	-0.172***	-0.173***	-0.173***
	(-7.889)	(-8.018)	(-8.118)	(-7.634)	(-7.695)	(-7.870)	(-8.002)	(-8.096)	(-7.617)	(-7.679)	(-7.881)	(-8.019)	(-8.110)	(-7.632)	(-7.695)
Ln(Total Compensations)		0.131	0.163*	0.141	0.140		0.165	0.205*	0.177	0.177		0.233	0.289*	0.251	0.250
		(1.964)	(2.424)	(2.084)	(2.072)		(1.950)	(2.407)	(2.074)	(2.062)		(1.937)	(2.390)	(2.063)	(2.051)
Ln(Board Size)			0.942***	0.992***	0.978***			1.197***	1.259***	1.241***			1.697***	1.784***	1.758***
			(6.617)	(6.916)	(6.585)			(6.525)	(6.809)	(6.488)			(6.388)	(6.664)	(6.357)
Independent Board Ratio				-0.109**	-0.107*				-0.136**	-0.134*				-0.190**	-0.187*
				(-2.831)	(-2.759)				(-2.841)	(-2.767)				(-2.847)	(-2.769)
Institutional Holdings					0.002					0.002					0.003*
					(2.101)					(2.129)					(2.172)
Tier1 Capital Ratio	-0.266***	-0.272***	-0.285***	-0.290***	-0.291***	-0.337***	-0.344***	-0.361***	-0.368***	-0.368***	-0.478***	-0.488***	-0.511***	-0.522***	-0.522***
	(-7.335)	(-7.356)	(-8.352)	(-8.313)	(-8.253)	(-7.381)	(-7.418)	(-8.427)	(-8.385)	(-8.324)	(-7.463)	(-7.515)	(-8.546)	(-8.496)	(-8.433)
Cost Ratio	0.014**	0.013**	0.011**	0.011**	0.011**	0.018**	0.017**	0.014**	0.014**	0.015**	0.026**	0.024**	0.021**	0.021***	0.021***
	(2.883)	(3.364)	(3.278)	(4.419)	(4.395)	(2.944)	(3.443)	(3.350)	(4.530)	(4.497)	(3.021)	(3.541)	(3.438)	(4.660)	(4.615)
Equity /Total Assets	-0.093**	-0.099**	-0.101**	-0.099**	-0.098**	-0.117**	-0.124**	-0.127**	-0.125**	-0.123**	-0.164**	-0.174**	-0.179**	-0.175**	-0.172**
	(-3.048)	(-2.859)	(-4.369)	(-3.906)	(-3.785)	(-3.062)	(-2.867)	(-4.414)	(-3.955)	(-3.829)	(-3.056)	(-2.859)	(-4.423)	(-3.977)	(-3.847)
ROE	0.029***	0.028***	0.028***	0.027***	0.027***	0.036***	0.035***	0.036***	0.034***	0.034***	0.050***	0.050***	0.050***	0.048***	0.048***
	(6.528)	(6.661)	(7.964)	(7.521)	(7.606)	(6.614)	(6.716)	(7.943)	(7.427)	(7.513)	(6.686)	(6.754)	(7.884)	(7.298)	(7.384)
GDP Growth Rate	-0.020	-0.003	-0.007	-0.006	-0.004	-0.026	-0.005	-0.010	-0.009	-0.007	-0.038	-0.008	-0.015	-0.014	-0.011
	(-1.899)	(-0.232)	(-0.535)	(-0.605)	(-0.443)	(-1.828)	(-0.298)	(-0.585)	(-0.662)	(-0.510)	(-1.736)	(-0.336)	(-0.605)	(-0.681)	(-0.538)
Strength of Credit	-0.439***	-0.464***	-0.464***	-0.458***	-0.456***	-0.557***	-0.589***	-0.589***	-0.581***	-0.580***	-0.790***	-0.836***	-0.835***	-0.824***	-0.822***
	(-14.887)	(-28.193)	(-19.181)	(-19.665)	(-19.909)	(-14.872)	(-28.187)	(-19.222)	(-19.795)	(-20.035)	(-14.755)	(-28.172)	(-19.351)	(-20.034)	(-20.291)
Controlling for year fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controlling for country fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
Adjusted R^2	0.197	0.202	0.208	0.212	0.212	0.197	0.202	0.208	0.211	0.212	0.197	0.201	0.208	0.211	0.211

Note: *, **, and *** indicated the significance at 10%, 5%, and 1%, respectvely. The parentheses stands for the *t*-statistics based on robust standard errors clustered by bank.

Appendix A1 Sample Distributions by Countries

Country	Observations	%
CHINA*	70	14
JAPAN	70	14
SPAIN	40	8
CANADA	35	7
ITALY	30	6
FRANCE	25	5
AUSTRALIA	20	4
INDIA*	20	4
BRAZIL*	15	3
GERMANY	15	3
GREECE	15	3
RUSSIAN FEDERATION*	15	3
SWEDEN	15	3
HONG KONG	10	2
IRELAND	10	2
ISRAEL	10	2
KOREA REPUBLIC OF*	10	2
MALAYSIA*	10	2
PORTUGAL	10	2
SINGAPORE	10	2
TURKEY*	10	2
AUSTRIA	5	1
DENMARK	5	1
QATAR*	5	1
SOUTH AFRICA*	5	1
SWITZERLAND	5	1
UNITED ARAB EMIRATES*	5	1
UNITED STATES OF AMERICA	5	1

* Emerging market.

Appendix A2 Variable definition of risk disclosure on bank VaR

Variable	Definition
VaR Characteristics.	1) Score of 1 if Holding Period (e.g. 1 day, 1 month). 2) Score of 1 if Confidence Level (e.g. 99%, 95%).
Summary VaR Statistics.	1) Score of 1 if High, Low, or Average VaR. 2) Score of 1 if Year-End VaR. 3) Score of 1 if VaR by Risk Category (e.g. Currency, Fixed Income, Equity). 4) Score of 1 if Diversification Effect is accounted for.
Intertemporal Comparison.	1) Score of 1 if Summary Information about the Previous Year VaR.
Daily VaR Figures.	1) Score of 1 if Histogram of Daily VaRs, or score of 2 if Plot of Daily VaRs.
Trading Revenues.	1) Score of 1 if Hypothetical Revenues. 2) Score of 1 if Revenues without Trading Fees. 3) Score of 1 if Histogram of Daily Revenues, or score of 2 if Plot of Daily Revenues.
Backtesting.	1) Score of 1 if Number of Exceptions, or score of 2 if Zero Exceptions. 2) Score of 1 if Explanation of Exceptions.

Appendix A3 Variable definition of risk management

Variable	Definition
CRO in executive board	CRO in executive board is a dummy variable which is equal to one, if the bank's CRO is a member of the executive board.
Risk committee	Risk committee is a dummy variable whether the bank has a risk committee.
Board size	Board size is the number of directors on the board.
Board independence	Board independence is the percentage of independent outside directors on the board.
% directors w. finance background	% directors w. finance background is the percentage of directors with experience (present or past) as an executive officer in a bank or insurance company.
Income diversity	Income diversity is defined as one minus the difference between net interest income and other operating income divided by total operating income and measures where a bank lies along the spectrum from pure commercial banking to specialized investment banking.
Number of meetings of the risk committee	Number of meetings of the risk committee is the number of times the risk committee of the respective banks met in 2006.
% of indep. directors in risk committee	% of independent directors in risk committee is the percentage of independent directors in the risk committee.
Nr. of directors in risk committee	Nr. of directors in risk committee is the number of independent directors in the risk committee.
CRO reports to board CRO reports to CEO	CRO reports to board and CRO reports to CEO, are dummy variables which are equal to one if the CRO directly reports to the board of directors or to the CEO, respectively.
G-Index	GIndex is the governance index of Gompers et al. (2003) which comprises 24 anti-takeover provisions.
CRO Present	A dummy variable that identifies whether the company's has a designated Chief Risk Officer (or an equivalent designation, such as Chief Credit Officer, Chief Lending Officer, or Chief Compliance Officer) with an enterprise-wide remit.
CRO Executive	A dummy variable that identifies whether the CRO (or the official with an equivalent designation) is an executive officer.
CRO Top5	A dummy variable that identifies whether the CRO (or the official with an equivalent designation) is among the five highest-paid executives.
CRO Centrality	Ratio of the CRO's total compensation, excluding stock and option awards, to the CEO's total compensation. When the company's has a CRO who does not figure among the five highest-paid executives, we calculate CRO Centrality based on the compensation of the fifth highest-paid executive, and subtract a percentage point from the resultant ratio. In the case in which company's do not report having a CRO, we de ne CRO Centrality based on the total compensation of the Chief Financial Officer if available; if CFO compensation is not available, then we compute CRO Centrality based on the compensation of the fifth highest-paid executive, and subtract a percentage point from the resulting ratio.
Risk Committee Experience	A dummy variable that takes the value of one if at least one of the independent directors serving on the board's risk committee has prior banking and financial industry experience, and zero otherwise.
Quality of Oversight	Equals the simple average of the dummy variables Risk Committee Experience and Active Risk Committee.
RMI Index	Computed as the first principal component of the following six risk management variables: CRO Present, CRO Executive, CRO Top5, CRO Centrality, Risk Committee Experience, and Active Risk Committee.
Alterlative RMI	Computed as the first principal component of the following seven risk management variables: CRO Present, CRO Executive, CRO Top5, CRO Centrality, Risk Committee Experience, Reports to Board, and Active Risk Committee.

Appendix A4 Sample of public-listed bank in the world (1996-2012)

World Ranking	Bank Name	Country Name	Total Assets mil USD Last avail. yr	World Ranking	Bank Name	Country Name	Total Assets mil USD Last avail. yr
1.	Deutsche Bank AG	GERMANY	2,799,978	61.	Bank of Beijing Co Ltd	CHINA	151,804
2.	BNP Paribas	FRANCE	2,542,739	62.	Malayan Banking Berhad - Maybank	MALAYSIA	142,532
3.	Industrial & Commercial Bank of China (The) -	CHINA	2,456,295	63.	Banco Espanol de Crédito SA, BANESTO	SPAIN	140,831
4.	Crédit Agricole S.A.	FRANCE	2,230,053	64.	National Bank of Greece SA	GREECE	138,271
5.	China Construction Bank Corporation	CHINA	1,949,219	65.	Chiba Bank Ltd.	JAPAN	131,653
6.	Bank of China Limited	CHINA	1,877,520	66.	Banco de Sabadell SA	SPAIN	129,949
7.	Agricultural Bank of China Limited	CHINA	1,853,319	67.	Hang Seng Bank Ltd.	HONG KONG	125,641
8.	Banco Santander SA	SPAIN	1,619,260	68.	Banco Comercial Português, SA-Millennium bcp	PORTUGAL	120,950
9.	Société Générale	FRANCE	1,528,493	69.	ICICI Bank Limited	INDIA	118,106
10.	UBS AG	SWITZERLAND	1,508,303	70.	Shizuoka Bank	JAPAN	117,063
11.	UniCredit SpA	ITALY	1,199,080	71.	Banco Espirito Santo SA	PORTUGAL	103,813
12.	Commerzbank AG	GERMANY	856,208	72.	Caja de Ahorros del Mediterraneo CAM	SPAIN	99,517
13.	Royal Bank of Canada RBC	CANADA	837,665	73.	Eurobank Ergasias SA	GREECE	99,394
14.	Intesa Sanpaolo	ITALY	827,042	74.	Shinsei Bank Limited	JAPAN	97,955
15.	Toronto Dominion Bank	CANADA	823,458	75.	Joyo Bank Ltd.	JAPAN	97,224
16.	National Australia Bank Limited	AUSTRALIA	798,570	76.	Turkiye is Bankasi A.S. - ISBANK	TURKEY	96,246
17.	Banco Bilbao Vizcaya Argentaria SA	SPAIN	773,306	77.	Bank Leumi Le Israel BM	ISRAEL	95,748
18.	Commonwealth Bank of Australia	AUSTRALIA	731,916	78.	Bank Hapoalim BM	ISRAEL	93,349
19.	Bank of Communications Co. Ltd	CHINA	731,828	79.	North Pacific Bank-Hokuyo Bank	JAPAN	92,822
20.	Westpac Banking Corporation	AUSTRALIA	706,348	80.	Nishi-Nippon City Bank Ltd (The)	JAPAN	92,728
21.	Bank of Nova Scotia (The) - SCOTIABANK	CANADA	678,217	81.	77 Bank (The)	JAPAN	92,413
22.	Australia and New Zealand Banking Group	AUSTRALIA	671,983	82.	Punjab National Bank	INDIA	91,962
23.	Natixis	FRANCE	656,892	83.	Absa Bank Ltd	SOUTH	91,176
24.	Danske Bank A/S	DENMARK	596,004	84.	Bank of Kyoto	JAPAN	89,418
25.	Bank of Montreal-Banque de Montreal	CANADA	533,451	85.	Bank of Baroda	INDIA	89,414
26.	Banco do Brasil S.A.	BRAZIL	527,884	86.	Korea Exchange Bank	KOREA	87,252
27.	China Merchants Bank Co Ltd	CHINA	443,583	87.	Turkiye Garanti Bankasi A.S.	TURKEY	85,540
28.	China CITIC Bank Corporation Limited	CHINA	438,966	88.	Qatar National Bank	QATAR	82,955
29.	Shanghai Pudong Development Bank	CHINA	426,081	89.	Hiroshima Bank Ltd	JAPAN	80,493
30.	Canadian Imperial Bank of Commerce CIBC	CANADA	399,376	90.	Hachijuni Bank	JAPAN	79,802
31.	Bankia, SA	SPAIN	391,831	91.	Bank of East Asia Ltd	HONG KONG	78,733
32.	Banco Bradesco SA	BRAZIL	388,469	92.	Public Bank Berhad	MALAYSIA	78,505
33.	Shinkin Central Bank	JAPAN	366,960	93.	Gunma Bank Ltd. (The)	JAPAN	78,467
34.	State Bank of India	INDIA	357,717	94.	HSBC Bank Canada	CANADA	78,350
35.	Svenska Handelsbanken	SWEDEN	356,340	95.	Banca popolare dell'Emilia Romagna	ITALY	78,261
36.	China Minsheng Banking Corporation	CHINA	353,769	96.	Emirates NBD PJSC	UNITED ARAB	77,499
37.	Skandinaviska Enskilda Banken AB	SWEDEN	343,025	97.	Bankinter SA	SPAIN	76,972
38.	Sberbank of Russia	RUSSIAN	336,535	98.	Gazprombank	RUSSIAN	76,956
39.	Banca Monte dei Paschi di Siena SpA-Gruppo	ITALY	311,427	99.	Chugoku Bank, Ltd. (The)	JAPAN	76,855
40.	Crédit Industriel et Commercial - CIC	FRANCE	301,828	100.	Alpha Bank AE	GREECE	76,527
41.	Industrial Bank Co Ltd	CHINA	279,284	101.	Bank of India	INDIA	75,765
42.	China Everbright Bank Co Ltd	CHINA	275,095	102.	Canara Bank	INDIA	74,103
43.	Swedbank AB	SWEDEN	269,620	103.	Akbank T.A.S.	TURKEY	73,208
44.	Deutsche Postbank AG	GERMANY	248,392	104.	National Bank of Abu Dhabi	UNITED ARAB	69,617
45.	Banco Santander (Brasil) S.A.	BRAZIL	215,139	105.	Iyo Bank Ltd	JAPAN	68,698
46.	Oversea-Chinese Banking Corporation Limited	SINGAPORE	213,545	106.	Banca Popolare di Milano SCaRL	ITALY	67,190
47.	VTB Bank, an Open Joint-Stock Company (JSC)	RUSSIAN	210,883	107.	HDFC Bank Ltd	INDIA	66,669
48.	Bank of Ireland-Governor and Company of the Bank	IRELAND	200,388	108.	Bangkok Bank Public Company Limited	THAILAND	66,483
49.	Ping An Bank Co Ltd	CHINA	199,682	109.	Juroku Bank Ltd. (The)	JAPAN	66,471
50.	Hua Xia Bank co., Limited	CHINA	197,461	110.	Piraeus Bank SA	GREECE	63,853
51.	SLM Corporation-Sallie Mae	UNITED	193,345	111.	Krung Thai Bank Public Company Limited	THAILAND	62,005
52.	Raiffeisen Bank International AG	AUSTRIA	190,173	112.	Bank Mandiri (Persero) Tbk	INDONESIA	60,861
53.	United Overseas Bank Limited UOB	SINGAPORE	182,177	113.	Yapi Ve Kredi Bankasi A.S.	TURKEY	60,728
54.	National Bank of Canada-Banque Nationale du	CANADA	180,612	114.	Siam Commercial Bank Public Company Limited	THAILAND	59,254
55.	Allied Irish Banks plc	IRELAND	176,803	115.	Nanto Bank Ltd. (The)	JAPAN	58,385
56.	Banco Popolare	ITALY	173,537	116.	Bendigo and Adelaide Bank Limited	AUSTRALIA	58,329
57.	Banco Popular Espanol SA	SPAIN	169,395	117.	Banca Carige SpA	ITALY	58,041
58.	Unione di Banche Italiane Scpa-UBI Banca	ITALY	167,944	118.	Daishi Bank Ltd (The)	JAPAN	56,836
59.	Industrial Bank of Korea	KOREA REPUBLIC OF	161,466	119.	Powszechna Kasa Oszczednosci Bank Polski SA - PKO BP SA	POLAND	55,817
60.	Bank of Yokohama, Ltd (The)	JAPAN	152,266	120.	AXIS Bank Limited	INDIA	55,793

World Ranking	Bank Name	Country Name	Total Assets mil USD Last avail. yr	World Ranking	Bank Name	Country Name	Total Assets mil USD Last avail. yr
121.	Shiga Bank, Ltd (The)	JAPAN	54,764	184.	UCO Bank	INDIA	35,284
122.	Chongqing Rural Commercial Bank	CHINA	54,726	185.	Yamanashi Chuo Bank Ltd (The)	JAPAN	35,107
123.	Hyakugo Bank Ltd.	JAPAN	54,518	186.	Oriental Bank of Commerce Ltd.	INDIA	34,821
124.	Kasikornbank Public Company Limited	THAILAND	54,367	187.	Awa Bank (The)	JAPAN	34,129
125.	Aareal Bank AG	GERMANY	54,100	188.	Arab Bank Plc	JORDAN	33,692
126.	Pohjola Bank plc-Pohjola Pankki Oyj	FINLAND	53,231	189.	Oita Bank Ltd (The)	JAPAN	33,619
127.	Oesterreichische Volksbanken AG	AUSTRIA	53,221	190.	Aichi Bank	JAPAN	33,379
128.	Israel Discount Bank LTD	ISRAEL	52,994	191.	Bank Negara Indonesia (Persero) - Bank BNI	INDONESIA	32,980
129.	Ogaki Kyoritsu Bank	JAPAN	52,495	192.	Joint Stock Commercial Bank - Bank of Moscow	RUSSIAN FEDERATION	32,924
130.	Chang Hwa Commercial Bank Ltd.	TAIWAN	52,274	193.	Corporation Bank Ltd.	INDIA	31,985
131.	Kansai Urban Banking Corporation	JAPAN	51,971	194.	Shikoku Bank Ltd. (The)	JAPAN	31,731
132.	Bank Rakyat Indonesia (Persero) Tbk	INDONESIA	51,820	195.	Tokyo Tomin Bank, Ltd. (The)	JAPAN	31,551
133.	Toho Bank Ltd. (The)	JAPAN	51,581	196.	Akita Bank Ltd	JAPAN	31,531
134.	Union Bank of India	INDIA	51,416	197.	Arab National Bank	SAUDI ARABIA	31,353
135.	Samba Financial Group	SAUDI ARABIA	51,406	198.	Banco de Credito e Inversiones - BCI	CHILE	31,024
136.	Abu Dhabi Commercial Bank	UNITED ARAB EMIRATES	50,027	199.	Tochigi Bank, Ltd.	JAPAN	30,579
137.	San-In Godo Bank, Ltd	JAPAN	49,995	200.	Eighteenth Bank (The)	JAPAN	29,992
138.	Higo Bank (The)	JAPAN	49,814	201.	Bank of Ayudhya Public Company Ltd.	THAILAND	29,907
139.	Raiffeisenlandesbank Oberösterreich AG	AUSTRIA	49,587	202.	Banco de Bogota	COLOMBIA	29,824
140.	Hong Leong Bank Berhad	MALAYSIA	49,471	203.	Aomori Bank Ltd. (The)	JAPAN	29,661
141.	National Bank of Kuwait S.A.K.	KUWAIT	48,912	204.	Banco de Valencia SA	SPAIN	29,069
142.	Turkiye Vakiflar Bankasi TAO	TURKEY	48,909	205.	BRE Bank SA	POLAND	28,933
143.	Hyakujushi Bank Ltd.	JAPAN	48,702	206.	Bank Audi SAL - Audi Saradar Group	LEBANON	28,737
144.	Riyad Bank	SAUDI ARABIA	48,237	207.	Ahli United Bank BSC	BAHRAIN	28,330
145.	Turkiye Halk Bankasi A.S.	TURKEY	48,224	208.	Thanachart Capital Public Company Limited	THAILAND	28,246
146.	Banco Santander Chile	CHILE	47,275	209.	Hokuetsu Bank Ltd. (The)	JAPAN	28,117
147.	Jyske Bank A/S (Group)	DENMARK	47,031	210.	Chiba Kogyo Bank	JAPAN	27,813
148.	Musashino Bank	JAPAN	46,216	211.	Ehime Bank, Ltd. (The)	JAPAN	27,743
149.	Keiyo Bank, Ltd. (The)	JAPAN	45,859	212.	Banque Centrale Populaire	MOROCCO	27,673
150.	Central Bank of India	INDIA	44,995	213.	Indian Bank	INDIA	27,658
151.	Bank of Nanjing	CHINA	44,722	214.	Caisse Régionale de Crédit Agricole Mutuel du Languedoc	FRANCE	27,639
152.	Banco BTG Pactual SA	BRAZIL	44,121	215.	Fukui Bank Ltd. (The)	JAPAN	27,070
153.	Bancolombia	COLOMBIA	43,992	216.	Banco de Credito del Peru	PERU	26,739
154.	Cyprus Popular Bank Public Co Ltd	CYPRUS	43,682	217.	Sydbank A/S	DENMARK	26,706
155.	Caisse régionale de crédit agricole mutuel de Paris et d'Ile-de-France-Crédit Agricole d'Ile-de-France	FRANCE	43,302	218.	Tsukuba Bank Ltd	JAPAN	26,643
156.	Kagoshima Bank Ltd. (The)	JAPAN	43,027	219.	Yachiyo Bank	JAPAN	26,571
157.	Bank of Queensland Limited	AUSTRALIA	43,014	220.	Yamagata Bank Ltd.	JAPAN	26,493
158.	Indian Overseas Bank	INDIA	42,937	221.	First International Bank of Israel	ISRAEL	26,466
159.	Bank Polska Kasa Opieki SA-Bank Pekao SA	POLAND	42,895	222.	Caisse Régionale de Crédit Agricole Mutuel Brie Picardie-Crédit Agricole Brie Picardie	FRANCE	25,947
160.	First Gulf Bank	UNITED ARAB EMIRATES	42,881	223.	Miyazaki Bank	JAPAN	25,809
161.	OTP Bank Plc	HUNGARY	42,382	224.	Arab Banking Corporation BSC	BAHRAIN	25,015
162.	Suruga Bank, Ltd. (The)	JAPAN	42,367	225.	BDO Unibank Inc	PHILIPPINES	24,981
163.	Bank Central Asia	INDONESIA	42,116	226.	Bank of Saga, Ltd. (The)	JAPAN	24,925
164.	Agricultural Bank of Greece	GREECE	41,716	227.	Finansbank A.S.	TURKEY	24,714
165.	Banco de Chile	CHILE	41,692	228.	Andhra Bank	INDIA	24,568
166.	Taiwan Business Bank	TAIWAN	41,678	229.	Michinoku Bank, Ltd. (The)	JAPAN	24,561
167.	Bank of Ningbo	CHINA	41,343	230.	Banque Marocaine du Commerce Extérieur-BMCE Bank	MOROCCO	24,249
168.	Hokkoku Bank Ltd. (The)	JAPAN	41,216	231.	Wing Hang Bank Ltd	HONG KONG	24,113
169.	Caisse régionale de crédit agricole mutuel Nord de France-Crédit Agricole Nord de France	FRANCE	40,855	232.	Denizbank A.S.	TURKEY	23,419
170.	Credito Emiliano SpA-CREDEM	ITALY	40,235	233.	BLOM Bank s.a.l.	LEBANON	23,165
171.	Attijariwafa Bank	MOROCCO	40,042	234.	JSC Rosbank	RUSSIAN FEDERATION	23,155
172.	Mizrahi Tefahot Bank Ltd.	ISRAEL	39,321	235.	Bank of the Ryukyus Ltd.	JAPAN	22,812
173.	Bank of Iwate, Ltd	JAPAN	38,605	236.	TMB Bank Public Company Limited	THAILAND	22,676
174.	Bank of Nagoya	JAPAN	38,458	237.	Oberbank AG	AUSTRIA	22,621
175.	Banca Popolare di Sondrio Societa Cooperativa per Azioni	ITALY	37,887	238.	Higashi-Nippon Bank	JAPAN	22,578
176.	Komercni Banka	CZECH REPUBLIC	37,854	239.	Bank of Okinawa	JAPAN	22,563
177.	Banque Saudi Fransi	SAUDI ARABIA	37,461	240.	Daisan Bank, Ltd.	JAPAN	22,469
178.	Minato Bank Ltd	JAPAN	37,429	241.	Union National Bank	UNITED ARAB EMIRATES	22,456
179.	Saudi British Bank (The)	SAUDI ARABIA	36,975	242.	EFG International	SWITZERLAND	22,363
180.	Credito Valtellinese Soc Coop	ITALY	36,760	243.	Towa Bank	JAPAN	22,160
181.	Allahabad Bank	INDIA	35,833	244.	TT Hellenic Postbank S.A	GREECE	22,136
182.	Syndicate Bank	INDIA	35,669	245.	Vietnam Joint-Stock Commercial Bank for Industry and Trade	VIETNAM	22,115
183.	Laurentian Bank of Canada	CANADA	35,469	246.	SpareBank 1 SR-Bank	NORWAY	21,893

World Ranking	Bank Name	Country Name	Total Assets mil USD Last avail. yr	World Ranking	Bank Name	Country Name	Total Assets mil USD Last avail. yr
247.	Caisse Régionale de crédit agricole mutuel Atlantique Vendée-Crédit Agricole Atlantique Vendée	FRANCE	21,876	301.	Signature Bank	UNITED STATES OF	14,666
248.	Metropolitan Bank & Trust Company	PHILIPPINES	21,817	302.	Far Eastern International Bank	TAIWAN	14,423
249.	Mashreqbank	UNITED ARAB EMIRATES	21,577	303.	Vseobecna Uverova Banka a.s.	SLOVAKIA	14,402
250.	Chukyo Bank Ltd	JAPAN	21,492	304.	Doha Bank	QATAR	14,401
251.	Turk Ekonomi Bankasi A.S.	TURKEY	21,027	305.	YES BANK Limited	INDIA	14,399
252.	Banco de Venezuela, S.A.C.A.	VENEZUELA	20,629	306.	Punjab & Sind Bank	INDIA	14,251
253.	Banco do Estado do Rio Grande do Sul S.A.	BRAZIL	20,614	307.	Commercial International Bank (Egypt) S.A.E.	EGYPT	14,216
254.	Joint-Stock Investment Commercial Bank Novaya Moskva-NOMOS-Bank	RUSSIAN FEDERATION	20,566	308.	State Bank of Bikaner and Jaipur	INDIA	14,178
255.	Zagrebacka Banka dd	CROATIA	20,566	309.	Saudi Investment Bank (The)	SAUDI	13,852
256.	MIE Bank Ltd (The)	JAPAN	20,558	310.	Bank Pan Indonesia Tbk PT-Panin Bank	INDONESIA	13,758
257.	ING Bank Slaski S.A. - Capital Group	POLAND	20,402	311.	Asia Commercial Joint-stock Bank-Ngan Hang	VIETNAM	13,492
258.	Credito Bergamasco	ITALY	20,397	312.	BBVA Colombia SA	COLOMBIA	13,440
259.	Caisse régionale de credit agricole mutuel d'Alpes-Provence-Credit Agricole Alpes Provence	FRANCE	20,251	313.	Caisse régionale de credit agricole mutuel de la Touraine et du Poitou-Credit Agricole de la	FRANCE	13,432
260.	United Bank of India	INDIA	19,941	314.	Bank UralSib	RUSSIAN FEDERATION	13,426
261.	Commercial Bank of Qatar (The) QSC	QATAR	19,654	315.	Commercial Bank of Kuwait SAK (The)	KUWAIT	13,332
262.	Sparebanken Vest	NORWAY	19,363	316.	Union Bank of Taiwan	TAIWAN	13,203
263.	Bank of The Philippine Islands	PHILIPPINES	19,182	317.	BTA Bank JSC	KAZAKHSTAN	12,852
264.	Banco Davivienda	COLOMBIA	18,870	318.	National Bank of Pakistan	PAKISTAN	12,821
265.	Bank Muscat SAOG	OMAN	18,798	319.	Caisse régionale de crédit agricole mutuel Loire Haute-Loire-Crédit Agricole Loire Haute-Loire	FRANCE	12,806
266.	Vijaya Bank	INDIA	18,720	320.	Privredna Banka Zagreb d.d-Privredna Banka Zagreb Group	CROATIA	12,741
267.	PT Bank CIMB Niaga Tbk	INDONESIA	18,394	321.	Habib Bank Limited	PAKISTAN	12,666
268.	Caisse régionale de credit agricole mutuel Sud Rhône -Alpes-Credit Agricole Sud Rhône Alpes	FRANCE	18,266	322.	Taichung Commercial Bank	TAIWAN	12,640
269.	Kotak Mahindra Bank Limited	INDIA	18,052	323.	Bank Handlowy w Warszawie S.A.	POLAND	12,371
270.	Joint Stock Commercial Bank for Foreign Trade of Vietnam- VIETCOMBANK	VIETNAM	17,607	324.	Caisse régionale de crédit agricole mutuel de l'Ille-et-Vilaine-Crédit Agricole de	FRANCE	12,299
271.	Bank Zachodni WBK S.A.	POLAND	17,520	325.	United Bank for Africa Plc	NIGERIA	12,295
272.	OJSC Promsvyazbank	RUSSIAN FEDERATION	17,473	326.	Kredyt Bank SA	POLAND	12,291
273.	Banco di Sardegna SpA	ITALY	17,425	327.	Spar Nord Bank	DENMARK	12,197
274.	Kazkommertsbank	KAZAKHSTAN	17,289	328.	EnTie Commercial Bank	TAIWAN	12,110
275.	Bank of Maharashtra	INDIA	17,209	329.	Nagano Bank Ltd.	JAPAN	12,040
276.	Gulf Bank KSC (The)	KUWAIT	17,178	330.	Bank für Tirol und Vorarlberg AG-BTV (3 Banken Gruppe)	AUSTRIA	11,922
277.	Canadian Western Bank	CANADA	17,130	331.	Scotiabank Peru SAA	PERU	11,918
278.	Shimizu Bank Ltd (The)	JAPAN	17,110	332.	Sparebank 1 Nord-Norge	NORWAY	11,860
279.	Dena Bank	INDIA	17,082	333.	Tatra Banka a.s.	SLOVAKIA	11,853
280.	CorpBanca	CHILE	17,044	334.	Federal Bank Ltd. (The)	INDIA	11,835
281.	SpareBank 1 SMN	NORWAY	16,937	335.	Banco de Galicia y Buenos Aires SA	ARGENTINA	11,825
282.	State Bank of Travancore	INDIA	16,801	336.	State Bank of Mysore	INDIA	11,808
283.	Banco Provincial	VENEZUELA	16,602	337.	Jammu and Kashmir Bank Ltd	INDIA	11,780
284.	Byblos Bank S.A.L.	LEBANON	16,602	338.	Bank of Kochi, Ltd	JAPAN	11,636
285.	Banco Bilbao Vizcaya Argentaria Chile	CHILE	16,401	339.	Tomato Bank, Ltd	JAPAN	11,546
286.	Burgan Bank SAK	KUWAIT	16,338	340.	Banco de Occidente	COLOMBIA	11,417
287.	Kita-Nippon Bank	JAPAN	16,212	341.	BankUnited, Inc	UNITED STATES OF	11,322
288.	Taiko Bank Ltd	JAPAN	16,171	342.	Indusind Bank Limited	INDIA	11,259
289.	Bank Coop AG	SWITZERLAN	15,754	343.	Bank Permata Tbk	INDONESIA	11,174
290.	TransCreditBank Group-TransCreditBank	RUSSIAN FEDERATION	15,711	344.	Tottori Bank	JAPAN	11,130
291.	Banco Continental-BBVA Banco Continental	PERU	15,669	345.	Scotiabank Chile	CHILE	11,084
292.	Bank Danamon Indonesia Tbk	INDONESIA	15,652	346.	Al Ahli Bank of Kuwait (KSC)	KUWAIT	11,055
293.	Ta Chong Bank Ltd.	TAIWAN	15,434	347.	Industrial Bank of Taiwan	TAIWAN	10,955
294.	Saudi Hollandi Bank	SAUDI	15,346	348.	Bank BPH SA	POLAND	10,853
295.	OJSC Halyk Savings Bank of Kazakhstan	KAZAKHSTAN	15,323	349.	Caisse régionale de Crédit Agricole mutuel du Morbihan-Crédit Agricole du Morbihan	FRANCE	10,837
296.	BRD-Groupe Societe Generale SA	ROMANIA	14,937	350.	Banco Desio - Banco di Desio e della Brianza	ITALY	10,816
297.	Banca popolare dell'Etruria e del Lazio Soc. coop.	ITALY	14,923	351.	Caisse Régionale de Crédit Agricole Mutuel Toulouse 31-Crédit Agricole Mutuel Toulouse	FRANCE	10,779
298.	Caisse régionale de crédit agricole mutuel de	FRANCE	14,889	352.	Banco Santander Rio S.A.	ARGENTINA	10,717
299.	Bank Millennium	POLAND	14,876	353.	Hellenic Bank Public Company Limited	CYPRUS	10,712
300.	Zenith Bank Plc	NIGERIA	14,701	354.	MDM Bank	RUSSIAN FEDERATION	10,678

World Ranking	Bank Name	Country Name	Total Assets mil USD Last avail. yr	World Ranking	Bank Name	Country Name	Total Assets mil USD Last avail. yr
355.	Bank Internasional Indonesia Tbk	INDONESIA	10,469	412.	Karnataka Bank Limited (The)	INDIA	7,100
356.	Jeonbuk Bank	KOREA REPUBLIC OF	10,424	413.	Banco Colpatria Red Multibanca	COLOMBIA	6,999
357.	Commercial Bank of Dubai P.S.C.	UNITED ARAB EMIRATES	10,413	414.	Ecobank Nigeria	NIGERIA	6,963
358.	Bank Al-Jazira	SAUDI ARABIA	10,373	415.	Bank of Khanty-Mansiysk	RUSSIAN FEDERATION	6,938
359.	Nordea Bank Polska SA	POLAND	10,337	416.	Open Joint-Stock Company "MTS Bank	RUSSIAN FEDERATION	6,890
360.	Access Bank Plc	NIGERIA	10,293	417.	Bank Mega TBK	INDONESIA	6,827
361.	Bank Saint-Petersburg	RUSSIAN FEDERATION	10,251	418.	Saigon Thuong Tin Commercial Joint-Stock Bank- SACOMBANK-Ngan Hang Saigon	VIETNAM	6,792
362.	Union Bank of Israel Ltd	ISRAEL	10,185	419.	Raiffeisen Bank Aval	UKRAINE	6,791
363.	Guaranty Trust Bank Plc	NIGERIA	10,164	420.	Sparebanken Pluss	NORWAY	6,763
364.	Banco Pichincha C.A.	ECUADOR	10,159	421.	Helm Bank S.A.	COLOMBIA	6,694
365.	Chong Hing Bank Limited	HONG KONG	9,973	422.	National Bank of Ras Al-Khaimah (P.S.C.) (The)-RAKBANK	UNITED ARAB EMIRATES	6,672
366.	MB Financial Inc	UNITED STATES OF	9,833	423.	Military Commercial Joint Stock Bank	VIETNAM	6,666
367.	Bank Tabungan Negara (Persero)	INDONESIA	9,828	424.	Union Bank of Nigeria Plc	NIGERIA	6,616
368.	Bank Gospodarki Zywnosciowej SA-Bank BGZ	POLAND	9,776	425.	Bank OCBC NISP Tbk	INDONESIA	6,598
369.	Housing Bank for Trade & Finance (The)	JORDAN	9,772	426.	BNP Paribas Bank Polska SA	POLAND	6,578
370.	Bank of Beirut S.A.L.	LEBANON	9,730	427.	Banco Daycoval SA	BRAZIL	6,512
371.	Banco Macro SA	ARGENTINA	9,674	428.	National Bank of Bahrain	BAHRAIN	6,353
372.	Ahli United Bank KSC	KUWAIT	9,432	429.	PT Bank Bukopin	INDONESIA	6,306
373.	Banco Industrial e Comercial S.A. - BICBANCO	BRAZIL	9,410	430.	Howa Bank, Ltd	JAPAN	6,263
374.	AK Bars Bank	RUSSIAN FEDERATION	9,404	431.	Bank Petrocommerce	RUSSIAN FEDERATION	6,202
375.	Tohoku Bank	JAPAN	9,335	432.	Mauritius Commercial Bank Ltd (The)	MAURITIUS	6,179
376.	ING Vysya Bank Ltd	INDIA	9,188	433.	Union Bank of the Philippines	PHILIPPINES	6,151
377.	BBVA Banco Frances SA	ARGENTINA	9,105	434.	PT BPD Jawa Barat dan Banten Tbk	INDONESIA	6,004
378.	United Bank Ltd.	PAKISTAN	8,972	435.	Banco Pine SA	BRAZIL	5,990
379.	Standard Chartered Bank (Thai) Public Company	THAILAND	8,962	436.	Kiatnakin Bank Public Company Limited	THAILAND	5,974
380.	Daito Bank	JAPAN	8,889	437.	China Banking Corporation - Chinabank	PHILIPPINES	5,969
381.	Bank of N.T. Butterfield & Son Ltd. (The)	BERMUDA	8,824	438.	Skye Bank Plc	NIGERIA	5,934
382.	Vietnam Export Import Commercial Joint Stock Bank	VIETNAM	8,813	439.	Banca Generali SpA-Generbanca	ITALY	5,885
383.	Minami-Nippon Bank, Ltd.	JAPAN	8,424	440.	National Bank of Oman (SAOG)	OMAN	5,797
384.	Banque Marocaine pour le Commerce et l'Industrie	MOROCCO	8,370	441.	King's Town Bank	TAIWAN	5,797
385.	BKS Bank AG	AUSTRIA	8,353	442.	Allied Bank Limited	PAKISTAN	5,734
386.	Fukushima Bank	JAPAN	8,214	443.	Vozrozhdeniye Bank	RUSSIAN FEDERATION	5,711
387.	Sparebanken More	NORWAY	8,081	444.	Bank of Sharjah	UNITED ARAB EMIRATES	5,700
388.	Republic Bank Limited	TRINIDAD AND TOBAGO	8,033	445.	Fukuoka Chuo Bank, Ltd.	JAPAN	5,698
389.	Banco Occidental de Descuento, Banco Universal CA	VENEZUELA	8,023	446.	Proton Bank S.A.	GREECE	5,686
390.	Seven Bank Ltd	JAPAN	7,948	447.	Banco Mercantil do Brasil S.A.	BRAZIL	5,661
391.	South Indian Bank Limited	INDIA	7,891	448.	Banco ABC - Brasil SA	BRAZIL	5,591
392.	Rizal Commercial Banking Corp.	PHILIPPINES	7,854	449.	Abanka Vipa dd	SLOVENIA	5,509
393.	Transilvania Bank-Banca Transilvania SA	ROMANIA	7,789	450.	Boursorama	FRANCE	5,468
394.	Sekerbank T.A.S.	TURKEY	7,770	451.	Crédit du Maroc	MOROCCO	5,465
395.	Chikuho Bank	JAPAN	7,717	452.	Bank of South Pacific Ltd.	PAPUA NEW GUINEA	5,449
396.	Bank Zenit	RUSSIAN FEDERATION	7,663	453.	Banco do Estado do Espirito Santo S.A. - BANESTES	BRAZIL	5,445
397.	HSBC Bank Malta Plc	MALTA	7,536	454.	Banco Exterior, C.A. - Banco Universal	VENEZUELA	5,434
398.	Nova Kreditna Banka Maribor d.d.	SLOVENIA	7,525	455.	Bank Linth LLB AG	SWITZERLAN	5,420
399.	Al Khalij Commercial Bank	QATAR	7,418	456.	Attica Bank SA-Bank of Attica SA	GREECE	5,403
400.	Banco Internacional del Peru - Interbank	PERU	7,418	457.	Banque Internationale Arabe de Tunisie - BIAT	TUNISIA	5,366
401.	Bank of Kaohsiung	TAIWAN	7,363	458.	Banco da Amazonia SA	BRAZIL	5,311
402.	Karur Vysya Bank Limited (The)	INDIA	7,357	459.	CIMB Thai Bank Public Company Limited	THAILAND	5,302
403.	BBK B.S.C.	BAHRAIN	7,354	460.	Bank Alfalah Limited	PAKISTAN	5,206
404.	Banco Popular	COLOMBIA	7,311	461.	Kyungki Bank Ltd.	KOREA REPUBLIC OF	5,200
405.	Hong Leong Finance Limited	SINGAPORE	7,307	462.	Banque Nationale Agricole	TUNISIA	5,159
406.	MCB Bank Limited	PAKISTAN	7,295	463.	Bank Tabungan Pensiunan Nasional PT	INDONESIA	5,145
407.	Bank CenterCredit	KAZAKHSTAN	7,291	464.	Banco del Caribe CA	VENEZUELA	5,125
408.	Philippine National Bank	PHILIPPINES	7,200	465.	Bank Dhofar SAOG	OMAN	5,099
409.	Miyazaki Taiyo Bank, Ltd. (The)	JAPAN	7,180	466.	Vestjysk Bank A/S	DENMARK	5,096
410.	Banco PanAmericano S.A.	BRAZIL	7,140	467.	Diamond Bank Plc	NIGERIA	5,072
411.	Banco Cruzeiro do Sul S.A.	BRAZIL	7,135	468.	Banca Ifis SpA	ITALY	5,064

World Ranking	Bank Name	Country Name	Total Assets mil USD Last avail. yr	World Ranking	Bank Name	Country Name	Total Assets mil USD Last avail. yr
469.	Joint-Stock Commercial Bank for Social Development - Ukrsotsbank	UKRAINE	5,043	485.	Banca Popolare di Spoleto SpA	ITALY	4,408
470.	Security Bank Corporation	PHILIPPINES	4,900	486.	DAB Bank AG	GERMANY	4,407
471.	Toyama Bank, Ltd, (The)	JAPAN	4,891	487.	Alandsbanken Abp-Bank of Aland Plc	FINLAND	4,400
472.	Ahli Bank QSC	QATAR	4,872	488.	Shimane Bank Ltd	JAPAN	4,350
473.	Société Tunisienne de Banque	TUNISIA	4,776	489.	BinckBank NV	NETHERLANDS	4,336
474.	Sparebanken Ost	NORWAY	4,757	490.	Bank Al Habib	PAKISTAN	4,274
475.	Farmers and Merchants Bank of Long Beach	UNITED STATES OF	4,659	491.	Credit Agricole Egypt	EGYPT	4,265
476.	Islami Bank Bangladesh Limited	BANGLADESH	4,651	492.	General Bank of Greece SA	GREECE	4,224
477.	Cosmos Bank	TAIWAN	4,605	493.	National Commercial Bank Jamaica Limited	JAMAICA	4,160
478.	Bank Ochrony Srodowiska SA - BOS SA-Bank Ochrony Srodowiska Capital Group	POLAND	4,576	494.	First Investment Bank AD	BULGARIA	4,085
479.	Allied Banking Corporation	PHILIPPINES	4,555	495.	Towne Bank	UNITED STATES OF AMERICA	4,481
480.	Moscow Industrial Bank	RUSSIAN FEDERATION	4,528	496.	National Bank of Fujairah	UNITED ARAB EMIRATES	4,061
481.	Banco Patagonia SA	ARGENTINA	4,517	497.	Standard Chartered Bank (Pakistan)	PAKISTAN	4,048
482.	Probusiness Bank	RUSSIAN FEDERATION	4,467	498.	Banagricola SA (Panama)	PANAMA	4,010
483.	Sandnes Sparebank	NORWAY	4,443	499.	SREI Infrastructure Finance Limited	INDIA	3,949
484.	B.L.C. Bank S.A.L	LEBANON	4,416	500.	Banco Comercial AV Villas SA	COLOMBIA	3,912

The Liability of Japaneseness: Why Japanese firms are being overpassed by Chinese and Korean firms in least developed and emerging markets

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Abstract

We suggest in this article that the internationalization process of the firm additionally to being influenced by industry, institution and resources considerations is strongly related to the market acquaintance (embeddedness) of the firm to its target market. Using a case study approach, we investigate three prominent East Asian electronic firms (Sony, Samsung, and Haier) in the Algerian market. The result of this study suggests that Korean & Chinese firms' market acquaintance toward this market, play an important role in the successful implementation of efficient strategies (with an important level of commitment) tailored for very harsh environment- given the fact their home market structures were until recently , similar to this emerging market settings. Conversely, Japanese firms, because of their home market sophistication, and despite their considerable international experience, appear to favor a more incremental approach by reducing their commitment in order to mitigate the risks.

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1.Introduction:

The last decade witnessed an overwhelming growth of the Chinese and Korean Multinational Enterprises (MNEs) in virtually every market worldwide (in both developed and developing economies). The Japanese supremacy in major industries such as in the electronics has been swept away by a new breed of companies from the emerging world, and most notably those from China and Korea. Japanese corporations despite their great technological advance and brand image have been constantly losing ground to these "New" Multinational firms and most strikingly in the emerging market (EM) contexts. A recent study from the Boston Consulting group (2012) across 7 product categories revealed that in the 5 biggest emerging markets of Brazil, Russia, India, China and Indonesia, only a handful of Japanese firms are well positioned. In the TVs and Home Appliances product categories for instance —where Japan Inc. notoriously posses a firm specific advantage, 7 out of 10 market leaders in term of market share are EM firms, and only one Japanese (Sharp) leads in Indonesia (see figure 1). Overall and across the 7 different product categories in the aforementioned EM, the study showed that with the exception of Indonesia (where Toyota, Sharp, and Unicharm leads in their respective categories), and India where Suzuki is the market leader in automotive, Japanese corporations are trailing in each country and product category.

Figure 1. Where Japanese electronics firms lead- and where it does not in the main emerging markets (TVs, home appliances and automotive categories):

Brazil **Russia** **India** **China** **Indonesia**

TVs

LG (Korea)	Samsung (Korea)	LG/Samsung (Korea)	Hisense (China)	LG (Korea)

Home Appliances

Whirlpool (USA)	Indesit (Italy)	LG (Korea)	Haier (China)	Sharp (Japan)

Source: Adapted from BCG

Other MNEs	Japanese companies

The raise of these MNEs from the emerging parts of the world have attracted the scholars' attention over the past 3 decades and have challenged the conventional wisdom in the international business literature in several aspects. Their internationalization process, path, motive and timing have been of particular interest in the literature. In this paper, we investigate the main reasons why Japanese firms have been underperforming in the emerging and least developed markets context and try to understand why conversely Chinese and Korean corporations have quickly and constantly been gaining ground in these markets. Using a case study approach, we investigate three prominent East Asian electronic firms from the aforementioned countries: Sony, Samsung and Haier in their African and Middle Eastern market strategies, with a special focus on the Algerian Market.

The contributions of this article are two folds, theoretical and practical. From a theoretical point of view, International business scholars have often stressed the experiential learning effect of firm's overseas investment (e.g. Johansson & Vahlne 1977, Chang 1995). In this research stream, location-specific disadvantages stem from inexperience in international markets, and the incremental accumulation of international and specific host country experience reduces such disadvantages and the liability of operating in foreign countries**.** As a firm accumulates experience and knowledge in foreign markets, it increases its willingness to further invest abroad, especially in culturally dissimilar markets. Nevertheless, scholars have often neglected the role of experience gained at home to operate abroad in similar setting regardless of cultural distance. This gives a head start to these firms through a 'Market Acquaintance Advantage'. The market acquaintance level of a firm to its target market is expected to have an important influence in a firm's strategy in the same way that the cultural distance influences it tremendously. International Business literature emphasized the role of experiential learning to reduce the liability of foreignness whereas, in this article we try to understand the relationship between the home market of the firm and its target market, and argue that the experience in the home market is also a determinant in entering foreign market — that have the same social, political, economical environment as the firm's home market— as it can be a liability of foreignness mitigator.

From a practical point of view, the interesting fact of this study is that these firms all belong to the same cultural block (eastern Asia), and are as distant from each other from Algeria—in terms of cultural and geographic distance— and yet, some of these firms are foreseeing the window of opportunity rather than the wall of risk.

There has been a substantial body of literature on the Japanese FDI in the developed countries (e.g. Chang 1995, Hennart & Park 1994, Kogut & Chang 1991, Kimura 1989), but few published work on Japanese FDI in emerging markets settings with some exceptions such as Delios & Henisz 2000 or Makino, Beamish & Zhao 2004.

Thus, this article tries to bridge this gap by investigating the issue of East Asian Consumer Electronic firms (Samsung, Sony and Haier) investing in an African market and by comparing the internationalization process of electronic firms from Japan, China and Korea in a highly risky environment . Since most previous studies adopted empirical approaches using large samples of Japanese firms investing in many countries or only one country, we decided to adopt a case study approach. The benefit of the case study approach is to give more insight on the strategy adopted by individual firms and thus providing a more fine grained analysis.

The next section reviews the internationalization process of Japanese, Korean and Chinese firms in the Middle East and Africa to compare between these 3 countries firm's path of internationalization in order to draw the striking similarities and differences. Section 3 presents the 3 case studies and finally, section 5 presents our discussion and conclusions.

2. Framework:

2.1. Framework of the Japanese expansion in Africa and the Middle East:

Japanese firms started to internationalize their activities in the late 1950s with the beginning of the so called Japanese economic miracle. Drawing on an active government support through cheap loans, credits and an active guidance—from governmental organizations such as the JICA (the Japanese International Cooperation Agency), Japanese firms grew to become among the biggest foreign outward investors worldwide. However and despite considerable FDI stock worldwide of over US$ 1 trillion in 2012, the Japanese FDI (JFDI) stocks in Africa and the Middle East amounted to a mere US$ 11 billion (1.5%) of the total Japanese investments stocks overseas (JETRO 2013). This low level of commitment in terms of FDI stocks could partially be explained by the high levels of risk incurred with doing business in these regions of the world. The caution and risk avoidance being deeply rooted in the Japanese corporate culture, Japanese firms are still hesitant making investment in uncertain business environments. Chrysostome & Lupton (2011) found in their study of Japanese FDI in Africa that the majority of Japanese firms (72%) used a minority shareholding structures to mitigate the investments risks. Voyer & Beamish (2004) in a study of the impact of the corruption on JFDI across 59 nations, found that Japanese corporations were highly influenced by corruption and weak institutional factors in general. The study found that the levels of perceived corruption in the emerging nations significantly predict the level of the JFDI.

Japanese Multinationals over time established themselves as technological powerhouses often targeting the high end of the market with expensive and high quality products which are not economically adapted to the vast majority of African and Middle Eastern consumers with limited purchasing power. This strategy brought Japan Inc. tremendous successes in the US and Europe but failed to capture sufficient market shares in the main emerging markets. In India for instance, inexpensive CRT televisions still dominate the market and accounted in 2009 for 70% of the sales and yet Japanese electronics companies focus with little success on selling more expensive high end flat screens TVs. South Korea's LG and Samsung for example had each 25% of this market whereas Japanese manufactures Sony, Panasonic and Toshiba collectively only had 13% market shares the same year (The Boston Consulting Group 2012).

Despite a considerable international experience, Japanese investors are still lacking the knowledge and capabilities to efficiently operate in Africa and the Middle and still favor the US, Europe or neighboring Asian countries. Underdeveloped institutional framework, political instability and weak market structures might hinder the Japanese willingness to invest in these regions in one hand, and increase the exit rate in the other hand. Demirbag, Apaydin & Tatoglu (2011) in their study of the Japanese subsidiaries in the Middle East and North Africa (MENA) under the period 1986-2003, found that from the total of 265 Japanese subsidiaries in the MENA region, 130 failed during the period of study largely due to the cultural, institutional and economic differences between Japan and the host countries of the region.

The following part summarizes the main features of the Japanese expansion in the Middle East and Africa:

- Comparative economic disadvantage and distaste for the low and middle end segments.
- High risk aversion in the regions.
- Lack of market acquaintance.
- Lack of organizational flexibility.
- Cultural and Economic distances hindering JFDI in the 2 regions.
- Lack of political acquaintance with the governments of the two the regions.

2.2. Framework of the Chinese and Korean expansion in Africa and the Middle East:

Although Korean firms started their internationalization (in the late 80s) a decade ahead of their Chinese counterparts, they still exhibited some noticeable similarities in their paths and motives (Yang, Lim, Sakurai & Seo 2009). In both China and Korea, economic growth provoked a surge in natural resources consumption pushing their governments to encourage and help national operators to venture globally (state owned companies in China and large Chaebol conglomerates in Korea), especially for Korea where there is a dramatic scarcity in natural resources. However, the quest of natural resources is not the sole motive of these international expansion; market seeking, strategic asset seeking and global brand building motives were also found in the literature to be strong internationalization motives for both Chinese and Korean firms in a context of increasing competitive pressure in their own domestic markets.

The Chinese case: China's frenetic economic growth has brought about an insatiable thirst for natural resources over the past two decades and pushed the Chinese central government to increasingly orient its OFDI policy toward resource-rich regions such the Middle East and Africa. Although it was historically low until the 2000s, the Chinese economic engagement in the Middle East and Africa is completely reshaping these regions' geopolitical landscape, given its impressive scope and scale, especially in Africa, which foreign investors had passed over and marginalized for decades (Tull 2006, p.459). In 2009, China overtook the U.S. as Africa's first trade partner, and trade volumes reached US$ 126 billion in 2010 (Christopher & Hanson 2012). China was also the Middle East's top trade partner, with a trade value of US$ 190 billion in 2010 (Chinadaily 2011). In terms of FDI, Chinese OFDI stocks in Africa grew by 1349% to US$ 13 billion in the period of 2004-2010 and by 509% to US$ 3,5 billion in the Middle East during the same period . China's growing economic commitment toward Africa and the Middle East in recent years has been positively welcomed by these area's leaders, as it offers an alternative to the involvement of former colonial powers and western countries perceived as imperialistic or neocolonialist. Unlike its western counterparts, the Chinese economic cooperation and aid do not hinge on any specific political or economic conditionalities such as human rights, democracy, or market liberalization (Tull 2006; Yetiv & Lu 2007). China's non-interference principle in the internal affairs of a state and its ability to maintain political relationships with "pariah" states helped to grow its interests and sphere of influence in countries such as Sudan or Iran. Throughout Africa and the Middle East, Chinese MNEs are gaining a strong foothold in not only the oil industry but also in a wide range of other sectors. In Algeria, a Chinese consortium was granted the construction of the longest highway in the continent; in Nigeria, HUAWEI technologies won a $750 million contract with the operator Globacom to upgrade its network infrastructure; and in Iraq, the government awarded five separate contracts to Chinese oil companies (Chen 2011). These examples illustrate the clear progression of Chinese corporations into these regions and the outperformance of their western competitors. We analyze in the following discussion the origin of the Chinese corporations' competitive advantages in these two regions.

The Korean case: Drawing on a strong experience in the neighboring Asian emerging nations where 46% of the Korean FDI stocks are concentrated, Korean firms are now emerging as increasingly important players on the global scene, especially in the developing regions of the world. In this context, Africa and the Middle East have been the theater of an intense diplomatic and economic battle ground between Korea, China, Japan and other western countries seeking to grow their influence in the two regions. Although still low in term of overall FDI stock (3% of the total FDI stocks worldwide), the Korean FDI stocks in the Middle East and Africa have been rapidly growing over the last decade. From a modest 191 million $USD invested in 2000, the FDI flows in 2012 reached $US 718 million. The total Korean FDI stocks in Africa and the Middle East amounted for $US 6.7 billion. Despite their relatively late comer investor status and a moderate engagement in the two regions in absolute value, Korean firms have been doing significant and strategic inroad in number of countries across the area. Recent examples include state-owned Korea Gas Co. (KOGAS) win of a contract against eight other bidders to secure a new $127 million pipeline contract in Iraq. In 2009, a consortium of Korean firms was granted a $20 billion contract for the construction of the first nuclear energy plant in the U.A.E. In Algeria, the company Daewoo won in 2012 a $500 million project to rehabilitate an important part of the capital city Algiers. Korean firms in 2009 won $36 billion worth of infrastructure and construction projects, this compares to only $2.3 billion in 2003 (Oliver & Wigglesworth 2010)

Although still to some extent focused on resource rich industries, the Korean investments in the regions have taken a radical turn this past 5 years by diversifying tremendously in as various industries as the IT, infrastructures, automotive and electronics. Highly regarded by the region economic and political community for their high technologies, capacity to adapt to local harsh conditions and respect of tight planning, Korean conglomerates are increasingly solicited and welcomed by both local partners and authorities. In this vein, Samsung have numerous plants already running or under construction in Africa and the Middle East: in Egypt, in the southern governorate of Beni Suef's, the governor himself relentlessly worked to ensure that Samsung plant was completed on time and was personally involved to ensure that the project does not face any administrative resistance. The Egyptian plant started operations in September 2013. In Algeria, one of the biggest Samsung plant in the world also started operating back in 2009 backed by Setif city local authorities. Several similar projects were announced by Samsung in Senegal, South Africa and Nigeria in a move from the company to conquer the promising markets of the Middle East and Africa.

The following part summarizes the main features of the Chinese and expansion in the Middle East and Africa:

- Increasing political acquaintance advantage in the last decade.
- Comparative economic advantage.
- Non risk aversion and first-mover advantage.
- Market acquaintance advantage.
- Organizational flexibility advantage.

3. The Case studies:

3.1. Background of the cases:

Over the last decade, Africa and the Middle East's economic growth has quickened, benefiting from growing raw material revenues and market liberalization policies, opening up new business opportunities in a market of 1.4 billion people. The two regions were the fastest growing in the world in terms of GDP, trailing only the emerging Asian countries during the period of 2000-2010 (See figure 2). In Africa, for instance, the population will increase from 965 million to 1,996 billion by 2050, and the real GDP rose 5.1 percent from 2000 to 2010. The continent's households spent a combined $860 million in 2008, more than those in India or Russia. This figure is projected to rise to $1.4 trillion over the next decade if the real GDP continues to grow at its current pace[1]. The Middle East as well, with a population of 380 million, has demonstrated steady economic performances between 2000 and 2010 as the real GDP rose 4.5 percent on average. This growth was especially strong among oil and gas exporter countries, where surging export volumes and prices enabled them to accumulate the area's current account surpluses of about US$440 billion in 2012[2].

In this context, Algeria, the largest country in Africa in terms of size, after more than a decade of political and economic troubles during the 1990s, had resumed economic growth in the 2000s under the impulsion of economic deregulation policies and a significant surge in oil and gas revenues. In the period of 2000-2009, public investments programs worth $250 billion were carried out to build 1.5 million houses and infrastructures and modernize the economy. Following the economic and political reforms, the purchasing power more than doubled since 1999. The country, home to the 4th African economy in terms of GDP, counted 37 million people in 2012.

However, these economic growth and opportunities come with a great deal of uncertainty and a harsh business environment for MNEs in these difficult regions of the world. This environment is typically characterized by mercurial economic policies, instable political systems, risk of popular revolutions, foreign companies' ownership regulation (the 51/49 rule), red tape, corruption, limited intellectual property protection, lack of various infrastructures, and failure to enforce contracts. Facing such extreme business conditions, foreign multinationals are less likely to make investments because assets face greater transactional hazards, and returns are less predictable and certain (Williamson 1996). Thus, the international business literature suggests that, in more externally uncertain and volatile environments, firms tend to lower their ownership structures and reduce their commitment in host countries with greater risks (e.g. Anderson & Gatignon 1986; Hennart 1988; Hill, Hwang & Kim 1990).

Figure 2.GDP Growth in Africa and the Middle East compared to other regions (2000-2013):

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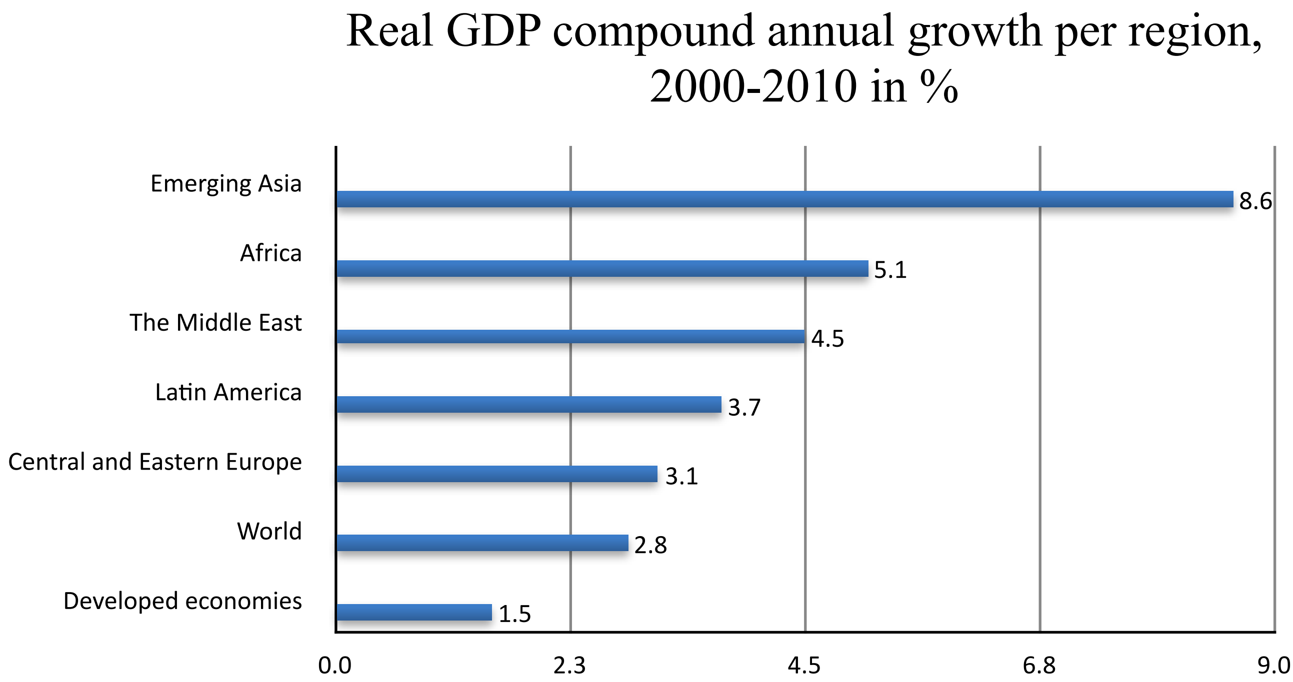
[1] McKinsey and company, *Lions on the move*: The progress and potential of African economies, June 2010.

[2] IMF, Middle East and North Africa: Defining the Road Ahead, May 2013.



Source: Global Insight; McKinsey Global Institute analysis

3.2. Methodology of the cases:

We selected the companies Sony, Haier and Samsung because they are among the largest and most successful electronics companies internationally and in their home markets, while the electronics industry offers a good setting in which to study the issue of MNEs' internationalization, as it is one of the most globalized industries (Li 2007). The companies were selected also because they are the most active international electronics firms in Africa and the Middle East. We therefore attempted to study the internationalization strategies they adopted in Africa and the Middle in general, and in Algeria in particular since the country is home to one of the largest economy in the region, but is still a very difficult one for MNEs to operate in.

Data for these case studies was gathered from face-to-face, phone, and mail interviews with the companies' executives in charge of the Middle East and African markets. Executives and CEO (in the case of Haier) in Algeria were also interviewed to obtain more detailed data (between September 2010 and August 2012). The interviews consisted mostly of open questions regarding the firm's internationalization strategy in the two regions. To complement the primary data, we used supplementary data, including published case studies, books, company brochures, corporate reports and website content, and various media articles.

3.3. The 3 cases:

3.3.1. The Sony case:

Based in the United Arab Emirates, Sony Gulf FZE is the Middle Eastern and African arm of Sony in these emerging regions of the globe. Established in 1992, this wholly owned subsidiary of Sony Japan manages and coordinates the firm operations in around 40 countries of these regions through its business partners and representatives offices. Sony in these regions collaborates in most of the cases with third party partners to distribute the brand through corporate stores and does not have as of 2013 any manufacturing facility in the area. In 2007, the subsidiary announced US$ 1 Billion sales revenue from its operations in countries such as Iran, Egypt, Kenya, Saudi Arabia…etc. Intense competition from Korean electronics firms pushed Sony Gulf FZE to adopt a new vision for the African continent last May in the ''Sony Conference for Africa 2013''. The firm announced a US$ 1.4 billion sales target by 2015 by increasing store numbers and opening new regional offices in Morocco, Nigeria and Angola in order to identify potential business partners with the capacity to implement Sony's growth strategy in the region (Sony Gulf FZE corporate data). The company aim to deliver to the African and Middle Eastern consumers high technology and rich media content products such as Smartphones, Laptops, High definition TVs, consoles, tablets…Etc by leveraging its high brand image.

In Algeria, Sony first broke into the market in 2001 through an Original Equipment Manufacturer (OEM) agreement with Maghreb Vision, a local medium-sized firm specializing in consumer electronics assembly. Sony licensed its technology and provided technical support for CRT TV assembling targeted toward the local market. After more than two years of collaboration, as competition from local and global brand intensified, Sony's products – according to Maghreb Vision – were not economically competitive anymore compared to other brands like LG or Samsung, and the partnership came to an end. Since then, Maghreb Vision started another OEM agreement with a Chinese firm.

In September 2009, Sony officially (re)entered the Algerian market through an exclusive sales representative agreement with Hasnaoui Group, a medium sized and diversified firm operating in the construction, automobile and multimedia sectors. Sony Gulf FZE provides to the newly constituted venture Hasnaoui Multimedia Sony Algeria, marketing, and managerial support in exchange of an exclusivity distribution agreement in Algeria.

Hasnaoui Multimedia's executives consider the entry in June 2009 as a commercial success as the firm reached a US$ 19 million sales in 2011 after two year of their re-entry (9% market share in the sector), and a yearly 50 % growth since their first fiscal exercise. The local firm currently operates 5 Sony stores in the 2 largest cities and plans to open 30 new Sony stores (both corporate and franchises) in the next 5 years, as well as pursuing a national distribution network development effort through distributors.

It took Sony six years to return and increase its commitment in the Algerian market. In this context, Sony Gulf FZE's CEO noted, "We carefully took our time to enter the market, but we had to choose the right partner to match our ambitions."[3] In the long term, one of the local firm's executives stated: '' We have great ambitions for the Algerian market, today, the consumer electronics market is one the fastest growing industrial sector in the country with two digits growth rates over the last years. We would like to leverage the good brand image of Sony Japan and improve our partnership with our Japanese partner as well as keep on improving our after sale service and distribution network. Our ambition for the next three years is to become one of the market leaders. Although the investment conditions are still complicated to this date in the country, we would like in the long term to set up a manufacturing facility if the investment environment get better in the future''.

The local firm considered 2012 as a turning point for the brand Sony in Algeria as it intensified its marketing and distribution network investments to face in the best conditions the fierce competition from both foreign and local firm, especially those from South Korea. It is also worth noting that the firm reported its first profit in 2011, after two exercises in loss.

3.3.2. The Samsung case:

Samsung started sporadic export activities in the Middle East and Africa in the beginning of the 90's and is now active in more than 50 countries with manufacturing plants in Algeria and Egypt, plants are also currently under construction in Ethiopia, Senegal, Sudan, South Africa and Nigeria. The firm sales amounted to over US$ 1.2 billion in 2010 (with an annual 30% growth) and is targeting US$ 8 billion by 2015 in Africa only, said Mr.Mandiol Ngom, head of the regional office in Senegal (Clémençot 2011). Currently, 300 engineers working in 49 countries to develop products specially tailored for the Middle Eastern and African markets, such as Air conditioners and refrigerators for tropical conditions , low cost cellphones and Smartphones, Computers and tablets powered by solar panels for region without access to electricity.

In Algeria, Samsung started export activities through local importers in 2002, and then agreed in 2009, to an ambitious partnership with Cevital, the largest private group in Algeria with US$ 3.5 billion turnover in 2010. The partnership resulted in 2006 to the creation of the joint venture Samha Samsung home appliances. The year 2009 marked a strategic turning point for Samsung in Algeria, with the opening of the biggest Samsung plant in Europe and Africa, and the fifth largest Samsung plant in the world, with a 2 to 5 million items production capacity per year. The

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[3] Quoted in ''Sony débarque en Algérie'', *Liberté*, 28 September 2009.

manufacturing facility produces flat-screen TVs (LCD, Plasma and LED), washing machines, refrigerators, air conditioners and plans to assemble cellphones and Smartphones. The Korean firm transferred technologies and its plant management practices to the local venture through several technology transfer and training programs in its Korean and Algerian facilities said the Human resource Manager.

This project required US$100 million investment, fully insured by the Algerian group and is expected to reach the breakeven point in 2013. Samsung intends to meet local demand and extensively export to European and African markets such as Tunisia, Morocco and Libya in 2012. The company claimed 35 % market share in 2011 (market leader), with a sales value worth about US$115 million and a yearly 15 % growth since 2008.

With 1,600 employees, the plant currently produces 200,000 TVs, 100,000 refrigerators, 150,000 air conditioners and 100,000 washing machines. The firm intends to triple this production in the next three years to progressively increase its exports to Europe, Africa and the Middle Eastern regions. Samsung executives showed certain optimism for short and middle term objectives in the local and surrounding emerging markets, as one Samsung Algeria business development executive said: ‘’ Despite a difficult economic crisis and a shrinking demand in the developed markets, we have an unprecedented optimism for the Algerian market and the African continent in general. With our strategic investment here, we secured Samsung’s prosperity in the region over the long run. Although the competition is getting more aggressive in the sector, we have at least two competitive advantages over the local and foreign firms: First, our technology and brand image is superior to the local electronics firms; Second, our production plant and unique partnership with the group Cevital give us a deep competitive edge over our international peers ‘’.

Samsung in Algeria is pursuing an extensive distribution strategy and significantly extended its distribution channel since 2006. By the end of 2011, the firm had 20 national distributors supplying 11 Samsung stores and 2,200 multi-brand retail stores across the 48 cities of the country.

3.3.3. The Haier case:

Haier’s operations in Africa and the Middle East trace back to 1993, when the firm started refrigerator exports across the region. With growing demand for home appliances in the region and the apparition of the wealthy middle class, the firm established Haier Middle East in 1999 in Dubai, The United Arab Emirates, to promote Haier’s products in the country and the neighboring Gulf region. Presently, according to the company’s data, Haier operates with local partners an industrial park in Jordan; 3 manufacturing plants in Algeria, Tunisia, and Nigeria; and two trading companies in the Middle East and Africa, and the company’s products have been sold in more than 30 countries within these regions. In order to meet the specific local needs in these regions, Haier launched several products tailored to the specific conditions; for example, it created a refrigerator that can operate through 100 hours of power failure and an air conditioner designed for desert and tropical conditions. Based on information feedback from its Middle Eastern branch in 2001, Haier developed an air conditioner combining strong heat-resistance capability with unique exterior materials to increase its anti-erosion abilities. When the sample was on the market, the whole orders for 2002 were fully taken by customers from Middle East and African countries (Liu & Li 2002).

In October 1999, Haier Sodinco Algeria was established as a Haier Tunisia (HHW) wholly owned subsidiary. After the Tunisian Group Hachicha obtained Haier brand exclusivity for the North African region, HHW identified Algeria as the first market to enter in the region. In association with U.K.-based General Mediterranean Holding Group, Haier Sodinco Algeria Ltd. was established near Algiers, the capital city. Following the initial establishment of the firm in 1999, Haier Sodinco's manufacturing plant started its operations in June 2000, specializing in air conditioner (central and split-system air conditioners) and washing machine assembly. In this phase, the company began to produce appliances utilizing relatively mature technologies under the "completely knock down" (CKD) assembling system and benefited from a reduced 5% tariff on appliances imports, in a move from the Algerian government to encourage the installation of manufacturing facilities in the country.

In the early 2000s, air conditioners were still considered luxury products among Algerian consumers, and they were priced at around US$1500 at the cheapest, and very few local and foreign firms invested in manufacturing facilities at that time. Haier Sodinco chose to focus its effort toward the corporate and domestic air conditioning market, a highly profitable and untapped market, in a country where temperatures easily reach 40 degrees Celsius in the summer. According to Mr. Hicham Doubabi, Haier Sodinco CEO between April 2002 and May 2010 and current member of the board, "When we first launched our air conditioners in the market, we didn't expect such a commercial success; we were overflowed by orders from both companies and distributors. The Algerian consumer was demanding of good quality appliances, reasonable prices and a good after-sale service, Haier was able to satisfy these needs, and that's the reason why our air conditioners are so appreciated by the consumers."[4]

Haier Sondinco's sales reached US$ 17 million in 2010, with a yearly 25% growth since 2005. In 2008, air conditioner, refrigerator, and washing machine sales represented 76%, 12%, and 12% of sales, respectively. Air conditioners' contribution to the gross margin of the firm accounted for 88% of the total gross margin during the same year. The firm claimed a 14% market share in the white good industry in 2010

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[4] Interviews with Mr. Doubabi between September 2010 and August 2012 (face-to-face meetings, phone calls, and e-mails).

and a leadership position in the central air conditioning system in the corporate and office building segment[5]. As the competition intensified over the years, Haier Sodinco started to offer more technologically advanced and higher-end appliances such as eco-friendly air conditioners and refrigerators or antibacterial washing machines.

In the absence of structured and specialized distribution networks, Haier Sodinco had to build its own network within Algeria and relied as well on the existing, more informal distributors and regional wholesalers. By 2009, the company had 30 regional distributors, 107 licensed dealers, and 7 regional after-sale service centers located throughout the country. "At first, we had to heavily rely on informal distribution network in the absence of specialized chain stores such as Best Buy or Darty. It was a problem for us, since such wholesalers like the ones in the Hamiz appliances market near Algiers usually operate under their own rules of the game and are reluctant to use invoices or any official contractual documents. But after we started to gradually build our own network and gained a good brand reputation in the market, it was much easier for us to properly work in the country" said Mr. Doubabi.

Haier Sodinco staff is almost fully composed of locals (170 employees). Teams of engineers and executives from China often visit the plant for technical trainings, production line installation, and technological transfers. In April 2002, Haier Sodinco appointed Mr. Hicham Doubabi, a former high executive and director of several banks both in the public and private sectors, as its chief executive officer. He retired for his function in 2010 and is currently member of the company's board.

Discussion and Conclusion:

Our case studies and previous research suggest that Japanese firms seem reluctant to increase their commitment by establishing local subsidiaries or production facilities in the least developed regions of Africa and the Middle East. Typically, they rely on local partners and tend to favor the export mode of entry, with low degrees of involvement and technology transfers. Japanese firms appear to be more risk averse than their Korean and Chinese counterparts toward these regions of the world. We saw that in the cases of Haier and Samsung, the firms already have extensive presence in terms both of distribution and manufacturing facilities across the Middle East and Africa whereas Sony only exports its product through local partners.

Concerning, their product strategy, we noticed a streaking difference between Sony in one hand, Haier and Samsung in the other hand. While the later offers products specifically tailored for the Middle Eastern and African markets such as air conditioners and refrigerators for tropical conditions, low cost cellphones and smartphones, laptops and tablets powered by solar panels for region without access to electricity, the later targets mostly high income consumers and tend to neglect the

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[5] Haier Sodinco Internal documents.

bottom of the consumers' pyramid confirming the arguments advanced by previous studies that Japanese firms have a distaste for low and middle class consumers.

Chinese and Korean firms' recipes of success in the Middle East/Africa and in the Algerian market in particular, lay in their ability to treat local environment as an opportunity rather than a threat, and to turn first mover disadvantages into advantages. Samsung, for instance, dealt with ownership percentage restriction by partnering with the largest Algerian private firms, and thus preempted a key local partner in a country where strong local partners are lacking. Likewise, both Haier and Samsung dealt with underdeveloped and fragmented distribution networks by establishing their own extensive distribution channel, thus securing the market supply and preempting strategic geographical space (Lieberman & Montgomery 1988). In the same way, Haier and Samsung dealt with a mercurial economic policy, taxing and disadvantaging imported products, by setting up local plants and benefitting from preferential tax measures. Based on our findings, we believe that Korean and Chinese electronics firms, due to their background, organizational culture, institutional and market conditions, along with their challenger status, have a natural *market acquaintance* with emerging markets conditions, with which they are familiar. These firms exhibit accelerated and increased commitment patterns toward these regions of the world and tend to consider it as strategic. Haier for instance, consider the African and Middle Eastern markets as key markets in term of market growth potential, market size and geographic position as it already has a presence in over 30 countries in the region with 4 already running manufacturing facilities in Algeria, Tunisia, Nigeria and Jordan.

The political support Haier and Samsung received from these countries' leaders also played an active role in their success. The two firms' *political acquaintances* and networking capabilities helped them access valuable political resources and gain strong support from these regions' local authorities. In times during which foreign investors were reluctant to invest in the manufacturing sectors of these countries, Haier and Samsung were among very few exceptions and were consequently welcomed with opened arms by the local authorities of Africa and the Middle East. For instance, Haier built upon political acquaintances with local politicians to ensure its activities in the two regions. Examples include the 2005 invitation by Haier in collaboration with the International Department of the Communist Party of China to a delegation of 17 members of ruling parties in Africa to visit the Haier facilities in China; the support the Chinese firm received from Jordanian King Abdullah 2; and the meeting between Cote d'ivoire's minister of ICT with the Haier representative over operations in the Middle East and Africa − Zhang Qingfu. As discussed earlier in this paper, in Egypt, Samsung as well received an active support from Beni Suef's governor himself to ensure that Samsung's plant was completed on schedule and was personally involved to ensure that the project does not encounter any administrative obstacles.

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Similarity and Differences Characteristics between Successful SME Entrepreneurs and Youth Entrepreneurs

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Abstract

This research is initiated by the problems of "Why do many youth entrepreneurs fail in starting up their business?" "What is the relationship between the entrepreneurship of the successful SME entrepreneurs and the youth entrepreneurship?" "How can we help the youth entrepreneurs?"

1. INTRODUCTION

Small and Medium Enterprises are socially and economically important. Globally SMEs account for 99% of business numbers and 40% to 50% GDP. Research studies on the SME business start up always link with the youth entrepreneurs. The success of the youth entrepreneurs will greatly help to reduce the unemployment and promote economic growth. From the World Bank estimation, by 2015 there will be three billion people in the world under the age of 25. Although there is a continuous rise of the education level, the International Labor Organization statistics forecast that the unemployed youth may make up as much as 40% of the world's total unemployment. There is also important forecast that the youth employment is almost three times as likely to be unemployed as adults. Many regions discover that the high unemployment rate of the young people is the consequent of the high failure rate of the youth entrepreneurs. It is important to identify the SME, youth entrepreneurs and youth entrepreneurship, as the criteria and condition of a youth entrepreneur to start up a SME is greatly different to the starting up of a large scale of enterprise.

2. LITERATURE REVIEW

Small and Medium Enterprises. For SMEs, there are many kinds of interpretation and understanding. The basic definition of SME is company whose headcount or turnover falls below certain limits; there are other definitions in terms of employment, turnover and assets. In Hong Kong, SME is defined by manufacturing and non manufacturing business, for manufacturing business, the employee number is less than 100. For the non manufacturing business, the employee number is less than 50. In China, the Law of the People's Republic of China on promotion of SMEs adopted at the Ninth Session of the National People's congress standing committee on 29th June 2002 has been put into effect since 1st January 2003. It is the guideline of China International SME Fair.

Entrepreneur There are many different understanding and opinions of the term Entrepreneur. In common parlance, entrepreneur is associated with starting a business. From Oxford English Dictionary, an entrepreneur is a person who sets up and runs a business or businesses. The term "entrepreneur" originated in French economics as early as the 17th and 18th centuries. Entrepreneur is a derivative of the French word "entreprendre", which means to undertake. Entrepreneur is someone who undertakes a significant project or activity. It is used to identify the venturesome individuals who stimulated economic progress by finding new and better ways of doing things (J.Gregory Dees 1998). There is a remarkable level of confusion surrounding the definitions of the entrepreneur. Researchers tend to perceive and define entrepreneurs using the premises of their own disciplines.

The Economists' approach To some economists, the entrepreneur is one who is willing to bear the risk of a new venture if there is a significant chance of profit. Cantillon (1755), Say (1803; 1815; 1816; 1839), Schumpeter (1954:222) are identified as the first pioneers at the research on entrepreneurs. Say was the first to lay a foundation for the field of entrepreneurs; he was described as the father of entrepreneurship (Filion 1988). An entrepreneur is a person who has the possession of a new enterprise, venture or idea and assumes significant accountability for the inherent risks and the outcome. The term was first defined by the Irish economist Richard Cantillon. Jean Baptiste Say defined that

Entrepreneurs create value. The entrepreneur shifts economic resources out of an area of lower and into an area of higher productivity and greater yield. Cantillion and Schumpeter did not emphasize on the creation of new business. From their viewpoint, entrepreneur is an innovator, a relative exceptional person who changes the economy in some way or another. Entrepreneurs are people who perform the function of reforming or revolutionizing the productive system, they continue to be entrepreneurs only as long as they continue to perform that function. Economists have associated entrepreneurs with innovation. Many economists believe that the entrepreneur performs the function of innovation that enables the liberal system to persist by going beyond its contradictions. Entrepreneurs serve their function by starting new, profit-seeking business ventures, but starting a business is not the essence of entrepreneurship.

The Behaviorists' approach Behaviorists include the psychologists, psychoanalysts, sociologists and other specialists of human behavior. Behaviorists tried to understand the entrepreneur as a person. (Filion 1997). And have concentrated on the creative and intuitive characteristics of entrepreneurs. Max Weber (1930) viewed entrepreneurs as innovators, independent people whose role as a business leader conveyed a source of formal authority. McClelland (1971) defined entrepreneur as someone who exercises control over production that is not just for his personal consumption. David C.McClelland was the author who really launched the contribution of the behavioral sciences to entrepreneurship. After McClelland, the behaviorists dominated the field of entrepreneurship for 20 Years until the early 1980s. Their goal was to define entrepreneurs and their characteristics.

The term "entrepreneur" has often been applied to the founder of a new business, or a person "who started a new business where there was none before" (Gartner 1985) In the trait approach, the entrepreneur is assumed with a particular personality with a set of characteristics. (William Gartner 1988) Once an entrepreneur, always an entrepreneur, since an entrepreneur is a personality type, a state of being that doesn't go away.

Youth entrepreneurs From the literature search there is no formal definition for the youth entrepreneur. According to the "Youth Business International" youth entrepreneurs are typically referring to the age group of 18-30. Global Entrepreneurship Monitor (GEM) refers to the age of 18-34. Due to changes in technology contributed to the business start-up boom, There are tendency that more and more highly educated young people, such as university graduates started up business in areas of information technology, biotechnology and other modern industries. Information technology reduced the advantage large asset-rich companies had held over undercapitalized start-ups (Richman,1997) . Youth entrepreneurs are distinct from adult entrepreneurs and must confront some specific challenges to business start up. Youth entrepreneurs are particularly responsive to new economic opportunities and trends. Due to their insufficient of resources such as capital, experience, skills, social and employment networks and competence that youth entrepreneurs are highly vulnerable to the competition especially at the economic downturn. Despite the presence of these barriers, youth entrepreneurs are considered to posses some entrepreneurial personality such as energetic, motivation, creativity, imagination and drive that are universally defined as the entrepreneurship for successful entrepreneurs. The age is a double side effect on an entrepreneur, for youth entrepreneurs they may not have as much experience as the adult entrepreneurs but due to their young age and without less living burden, they have more braveness for innovation and create new ideas. It is a common practice that the youth entrepreneurs are frequently referring to the SME entrepreneurs. Many youth entrepreneurs posses with some working experience, good education and certain qualities but their starting up of the small businesses do not meet their original dream of scale or hard struggle to survive. It is a fact that many of the youth entrepreneurs may not have the sufficient or suitable entrepreneurship for them to start their own business.

Entrepreneurship. Entrepreneurship has been used in business context for over 200 years; there is disagreement about the specific definition of entrepreneur and what it means to be entrepreneurial (Morris, Lewis, Sexton, 1994). Entrepreneurship is defined as the act of being an entrepreneur, which is a French word meaning “one who undertakes innovations, finance and business acumen in an effort to transform innovations into economic goods. The most obvious form of entrepreneurship is that of starting new business (Wikipedia）. The concept of entrepreneurship was first established in the 1700s. Economist Joseph Schumpeter view entrepreneurship as a force of “creative destruction” Entrepreneurship is an attitude – a proactive management approach to seizing opportunities and getting things done. Peter Drucker, known as “the Father of Modern Management,” defines entrepreneur and entrepreneurship – the entrepreneur always searches for change, responds to it, and exploits it as an opportunity. He comments that starting a business is neither necessary nor sufficient for entrepreneurship, not every new small business is entrepreneurial or represents entrepreneurship.

From the inclusive entrepreneurship approach, it is about a set of elements including attitudes, competences and skills which allow people to turn their dreams into concrete projects or “enterprises” and then see these through to fruition. Inclusive entrepreneurship represents by four main elements: the entrepreneurial characteristics, the entrepreneurial motivations, the entrepreneurial competence and the entrepreneurial skills. The inclusive entrepreneurship approach has been widely used by many countries.

Youth entrepreneurship. Youth entrepreneurship is referring to the entrepreneurial attitudes, qualities, behaviors, activities, skills and opportunities of the young people who start to run their own business. There are some special characteristics only apply to the youth entrepreneurs. These elements or behaviors are different to the elderly or experienced entrepreneurs. By evaluating both personality and financial satisfaction before starting a business, there is an increase chance that the business will be an overall success. Hormozi (2004). Entrepreneurship is not suitable for everyone, it is vital that opportunities are also open to the youth entrepreneurs. Entrepreneurship is an engine for the economic growth. According to the Working Group on Youth Entrepreneurship, the Canadian Foundation for Economic Education (CFEE), they identify there are the core factors of the youth entrepreneurship which are highly correlated with the entrepreneurial success. There are two complementary disciplines for the entrepreneurship research.

Entrepreneurship is an applied research examines the entrepreneur’s activities, characteristics, economic and social effects and the support methods used to facilitate the expression of entrepreneurial activity. It is a research where the client is a practitioner which produces results of interest to the practicing and potential entrepreneurs. (Filion 1997)

Entreprenology is a theoretical research looking to create a theory of entrepreneur. The field of entrepreneurship has attracted the interest of specialists from all the soft science disciplines. There is a desire to understand trends and universal laws for the field of entrepreneurship. The theory would be based on rigorous quantitative models and would be obtained by means of wide-ranging quantitative research that would incontestably prove the nature of the entrepreneur, entrepreneurial activity and its effects on economic development. This is a research where the client is another researcher.

3. DATA COLLECTION METHODS

Data collection – The entrepreneurial characteristics of the successful SME Entrepreneurs are collected by personal interviews of the Pilot test group of 10 SME entrepreneurs by which 5 from Hong Kong and 5 from China individually. The entrepreneurial characteristics of the youth entrepreneurs are collected by surveys of 2 pilot groups of potential youth entrepreneurs (MBA students of the City University of Hong Kong with the self starting business intention), one group on 08032013 of 31 Hong Kong students and another group on 09032013of 23 Chinese students.

4. DATA PROCESSING METHOD

Two methods are employed to run the pilot test group data for comparison. The first method is using the scaling and mean average approach by which the data are scaled from 100 into 50 with the scaling factor: (Highest mark – lowest mark)/50. This is to eliminate the bias of the respondents on the usually high or low mark basis. The data in current study are point-wise scores. The method of directly averaging has its own limitations (Hochbaum, 2010). (Table I show the ranking scale of the 3 Data set by the scaling and mean average method.)

To look for a rigorous result, another mathematical model has been used to make the comparison, we use the pair-wise comparisons ranking method. We propose a Principal Eigenvector Rank Aggregation (PERA) method to process the data. This method consists of 3 parts: Transform each respondent's score into a pairwise matrix; Aggregate those pairwise matrices by their geometric mean; Generate the Principal Eigenvector of the aggregated matrix.

One of the important issues is pairwise comparisons ranking is consistency. In order to measure the consistency of aggregated matrix, we employ the Consistency Index (C.I.) and Consistency Ratio (C.R.) are widely used in Analytic Hierarchy Process and defined by Saaty (1980).

The PERA method is described as follows:
Notations:
Respondent: $1...,r,...R$;
Attributes: $1...,p,q,...P$;
$S(r,q)$: Score of attribute q by respondent r;
M^r: $P\times P$, comparison matrix of respondent r;
M : $P\times P$, final comparison matrix.

Procedure: Principal Eigenvector Rank Aggregation

Step One: For each $r\in\{1,...,R\}$, set all values in M^r with 1;

Step Two: For each pair attributes (p,q) $(p\neq q)$, $M^r(p,q)$ is computed by the following rules:

Case 1: $S(r,p)\neq 0$ and $S(r,q)\neq 0$:

$$M^r(p,q)=S(r,p)/S(r,q);$$
$$M^r(q,p)=S(r,q)/S(r,p).$$

Case 2: $S(r,p)\neq 0$ and $S(r,q)=0$:

$$M^r(p,q)=MaxRatio$$
$$M^r(q,p)=1/MaxRatio$$

where $MaxRatio$ is the maximum value of all ratios in Case 1.

Case 3: $S(r,p)=0$ and $S(r,q)\neq 0$:

$$M^r(p,q)=1/MaxRatio$$
$$M^r(q,p)=MaxRatio$$

Step Three: Calculate the M matrix as the geometric mean of all M^r as follows:

$$M(q,p)=\sqrt[1/R]{\prod_{r=1}^{R}M^r(p,q)};$$

Step Four: Compute the eigenvector and eigenvalue of matrix M; Find the principal-right eigenvalue $\lambda_{\max}$ and corresponding eigenvector W. Namely,

$$\lambda_{\max}W=MW$$

The generated eigenvector W is the output weight for all properties.

Step Five: Calculate the performance indicators:

Consistency Index (C.I.):

$$C.I.=\frac{\lambda_{\max}-P}{P-1}$$

Random Index (R.I.):

$$R.I.=\frac{\sum_{i=1}^{N}RCI_i}{N}$$

where RCI_i is the $C.I.$ value based on a random matrix i. N is the number of simulation times.

Consistency Ratio (C.R.):

$$C.R. = \frac{C.I.}{R.I.}$$

5. RESULTS

To get an alternative perspective of the data, the proposed Principal Eigenvector Rank Aggregation (PERA) method is used to identify the weights of the selected 60 attributes and rank them.
We apply the above procedure to the 3 dataset and the results are presented in Table II. Table III shows the performance indicator values for the 3 datasets.

Table I Scaling and mean average Results for 3 Data sets

	SME Entrepreneurs		08032013Y		09032013Y	
Rank-ing	Attribute	Score	Attribute	Score	Attribute	Score
1	Honesty	87.56	Judgment	89.03	Interpersonal	92.12
2	Self determination	85.48	Interpersonal	87.72	Communication	91.43
3	Undertake	85.33	Decision making	85.69	Problem solving	90.40
4	Problem solving	82.98	Communication	85.44	Articulate	89.29
5	Responsibility	82.56	Self management	85.28	Tactile	89.05
6	Perseverance	80.98	Emotional Quotient	83.52	Decision making	88.77
7	concentration	80.33	Positive	83.22	Perseverance	88.54
8	Self confidence	79.27	Leadership	83.01	Judgment	87.94
9	Analytical	77.81	Perseverance	82.10	Self determination	87.83
10	Interpersonal	76.39	Responsibility	82.07	Convincing	87.49
11	Leadership	76.39	Undertake	81.93	Studious	87.38
12	Studious	76.06	Self Initiative	81.68	Leadership	85.82
13	Sustainability	75.23	Problem solving	81.63	Positive	85.76
14	Decision making	74.48	Self confidence	81.01	Creative thinking	85.52
15	Self management	73.98	Observation	79.94	Vision	85.29
16	Communication	71.81	Calm	79.65	Passion	84.88
17	Judgment	71.73	Tactile	79.07	Self Initiative	82.75
18	Positive	71.48	concentration	78.64	Emotional Quotient	81.79
19	Tactile	70.56	Vision	78.41	Observation	81.70
20	Preparation	69.42	Analytical	77.45	Optimistic	81.03
21	Pragmatic	68.39	Patience	77.25	Self confidence	80.90
22	Creative thinking	68.06	Studious	76.04	Planning	80.80
23	Self Initiative	66.73	Self determination	75.88	Self management	79.81
24	Emotional Quotient	66.31	Convincing	75.16	Brave	79.52
25	Observation	65.73	Sustainability	75.06	Reasoning	79.27

26	Sense of crisis	65.06	Ability	74.92	Analytical	79.10
27	Systematic	63.06	Pragmatic	74.78	Patience	79.07
28	Ability	62.23	Articulate	72.95	Sustainability	79.03
29	Passion	62.02	Brave	72.24	Sense of crisis	78.34
30	Vision	61.14	Eloquence	71.19	New technology	78.12
31	Articulate	61.06	Passion	71.11	concentration	77.72
32	Organizing	60.14	Organizing	70.78	Organizing	76.35
33	Patience	59.23	Punctuality	70.70	Ability	75.27
34	Convincing	58.48	Planning	70.58	Eloquence	74.87
35	Punctuality	57.65	Financial skill	69.86	Undertake	74.61
36	Identify	56.98	Cautious	69.61	Financial skill	72.43
37	IQ	56.14	Honesty	69.50	knowledge	71.67
38	Cautious	55.31	Preparation	69.09	Preparation	71.56
39	Optimistic	55.11	Reasoning	68.21	Appreciation	71.34
40	Experienced	54.73	Creative thinking	67.72	Identify	70.82
41	Reasoning	54.23	Systematic	65.22	Systematic	70.57
42	Planning	53.56	Objective	65.03	Honesty	69.72
43	knowledge	53.23	Sense of crisis	63.72	Punctuality	68.98
44	Commitment	52.98	Optimistic	61.47	Responsibility	68.37
45	Humble	52.27	Appreciation	60.70	Commitment	67.63
46	Brave	51.69	Identify	60.23	Aggressive	66.90
47	Calm	51.48	knowledge	57.30	Pragmatic	59.89
48	Appreciation	51.39	IQ	56.22	Objective	57.54
49	Integrity	50.27	Realistic	55.88	Calm	57.35
50	Objective	49.48	Tolerant	51.81	Experienced	56.82
51	New technology	49.02	Humble	51.26	Realistic	55.95
52	Eloquence	49.02	New technology	50.43	Subjective	55.53
53	Talent	46.73	Memory skill	49.21	Talent	53.32
54	Memory skill	43.86	Experienced	48.20	Cautious	53.25
55	Financial skill	43.48	Commitment	47.94	IQ	51.99
56	Tolerant	42.56	Self esteem	47.63	Memory skill	51.53
57	Realistic	35.56	Integrity	46.26	Humble	48.19
58	Self esteem	35.11	Aggressive	44.52	Integrity	45.57
59	Subjective	29.33	Talent	42.25	Tolerant	34.68
60	Aggressive	27.67	Subjective	23.01	Self esteem	33.74

Table II PERA method Results for 3 Data sets

	SME Entrepreneurs		08032013Y		09032013Y	
Rank-ing	Attribute	Score	Attribute	Score	Attribute	Score
1	Honesty	0.1458	Judgment	0.1498	Undertake	0.1516
2	Undertake	0.1451	Decision making	0.1476	Communication	0.1454
3	Self determination	0.1450	Leadership	0.1471	Perseverance	0.1440
4	Problem solving	0.1435	Self confidence	0.1457	Self determination	0.1437
5	Responsibility	0.1426	Responsibility	0.1445	Leadership	0.1433

6	concentration	0.1423	Communication	0.1442	Self confidence	0.1432
7	Perseverance	0.1405	Observation	0.1440	Positive	0.1427
8	Preparation	0.1394	Self management	0.1439	Interpersonal	0.1421
9	Analytical	0.1385	Positive	0.1438	Self Initiative	0.1418
10	Interpersonal	0.1381	Interpersonal	0.1432	Passion	0.1406
11	Leadership	0.1381	Perseverance	0.1430	Convincing	0.1405
12	Studious	0.1377	Self Initiative	0.1424	Decision making	0.1400
13	Sustainability	0.1375	Patience	0.1410	Studious	0.1392
14	Positive	0.1360	Analytical	0.1409	Problem solving	0.1388
15	Decision making	0.1357	Emotional Quotient	0.1407	Self management	0.1386
16	Self confidence	0.1356	Ability	0.1401	concentration	0.1385
17	Self management	0.1354	Vision	0.1383	Articulate	0.1377
18	Tactile	0.1351	Calm	0.1383	Observation	0.1364
19	Communication	0.1349	Problem solving	0.1372	Vision	0.1363
20	Judgment	0.1340	Tactile	0.1365	Brave	0.1357
21	Self Initiative	0.1336	Sustainability	0.1363	Emotional Quotient	0.1352
22	Pragmatic	0.1333	Pragmatic	0.1355	Analytical	0.1347
23	Creative thinking	0.1332	Organizing	0.1352	Judgment	0.1346
24	Sense of crisis	0.1330	concentration	0.1351	Creative thinking	0.1345
25	Ability	0.1321	Honesty	0.1348	Patience	0.1344
26	Emotional Quotient	0.1306	Convincing	0.1344	Reasoning	0.1331
27	Observation	0.1305	Cautious	0.1343	Tactile	0.1329
28	Commitment	0.1298	Punctuality	0.1333	Organizing	0.1320
29	Patience	0.1297	Studious	0.1332	Planning	0.1320
30	Articulate	0.1296	Planning	0.1326	Sustainability	0.1320
31	Punctuality	0.1294	Articulate	0.1314	Optimistic	0.1311
32	Passion	0.1292	Self determination	0.1310	Preparation	0.1306
33	Vision	0.1288	Passion	0.1305	Eloquence	0.1300
34	Convincing	0.1286	Eloquence	0.1297	Responsibility	0.1294
35	Organizing	0.1279	Sense of crisis	0.1283	Systematic	0.1292
36	Planning	0.1278	Identify	0.1283	Ability	0.1279
37	Systematic	0.1276	Systematic	0.1277	Honesty	0.1277
38	IQ	0.1274	Undertake	0.1277	Sense of crisis	0.1271
39	knowledge	0.1267	Creative thinking	0.1268	New technology	0.1267
40	Identify	0.1266	Reasoning	0.1259	Financial skill	0.1262
41	Cautious	0.1265	Preparation	0.1249	Commitment	0.1258
42	Experienced	0.1260	knowledge	0.1241	Pragmatic	0.1219
43	Calm	0.1259	Brave	0.1234	Punctuality	0.1218
44	Reasoning	0.1259	Financial skill	0.1227	knowledge	0.1208
45	Objective	0.1233	Appreciation	0.1208	Calm	0.1204
46	Appreciation	0.1227	Optimistic	0.1196	Aggressive	0.1197
47	Humble	0.1201	Objective	0.1186	Appreciation	0.1188
48	Integrity	0.1198	New technology	0.1122	Identify	0.1175
49	Eloquence	0.1197	Memory skill	0.1105	Memory skill	0.1165
50	Financial skill	0.1196	IQ	0.1104	Objective	0.1139
51	Brave	0.1196	Experienced	0.1103	Experienced	0.1119

52	Talent	0.1189	Tolerant	0.1102	Talent	0.1108
53	New technology	0.1184	Realistic	0.1102	Cautious	0.1107
54	Tolerant	0.1147	Aggressive	0.1062	Subjective	0.1087
55	Realistic	0.1133	Self esteem	0.1051	Realistic	0.1087
56	Optimistic	0.1124	Commitment	0.1033	IQ	0.1085
57	Memory skill	0.1120	Humble	0.1026	Humble	0.1074
58	Self esteem	0.1071	Integrity	0.0994	Integrity	0.1053
59	Aggressive	0.1011	Talent	0.0941	Tolerant	0.1018
60	Subjective	0.0980	Subjective	0.0801	Self esteem	0.0978

Table III PERA Performance Indicator of the 3 Datasets

Data Sets	Max Eigenvalue	Consistency Index (C.I.)	Random Index (R.I.)	Consistency Ratio (C.R.)	Number of Respondents
SME Entrepreneurs	60.0005	8.47×10^{-6}	1.751	4.84×10^{-6}	10
08032013Y	60.0006	1.02×10^{-5}	1.751	5.83×10^{-6}	31
09032013Y	60.00028	4.75×10^{-6}	1.751	2.71×10^{-6}	23

CONCLUSIONS

The conclusion for this paper has three major sections. The first section is the accuracy of the collected data and the validity of the data analysis method. The second section is the quantitative comparison of the 3 data sets ranking result. The third part is the qualitative explanation of the relationship between the SME entrepreneurs and the potential youth entrepreneurs. Finally there is an overall view conclusion on the research gap of the Self determination Theory applied on entrepreneurship research.

The accuracy and reliability of the research is greatly depended on the data quality and the correct application of the data analysis method. The priority checking is the data analysis methods, In comparing the data sets by the Scaling and mean average method (Table I) and the PERA method (Table II), The SME Entrepreneurs data ranking order comparison with 91.6% of the 60 entrepreneurial characteristics are within the 10% deviation of the ranking order. For Group 08032013Y, 78.3% of the 60 entrepreneurial characteristics are within the 10% deviation of the ranking order. For Group 09032013Y, 68% of the 60 entrepreneurial characteristics are within the 10% deviation of the ranking order. From above figures, they reflect that the 3 data sets ranking orders of both tables show a consistent, result. The result shows that both the Scaling and mean average method and the PERA method are valid.

This is based on the induction approach that the Principal Eigenvector Rank Aggregation (PERA) is proved to be reliable that it is accepted to quantify the accuracy and reliability of the collected data. To check the accuracy of the data, the Consistency Index (CI) and Consistency Ratio (CR) computational method is used. In table III, the performance Indicator Consistency Ratio of the 3 data sets shows a high consistency of the aggregated matrix. The

CR for SME entrepreneurs is 0.00000484. The CR for Group 08032013Y is 0.0000583. The CR for the group 09032013 is 0.00000271.

In a normal practice, when the Consistency Ratio is smaller than 0.1, it is justified that the uniformity of the matrix is acceptable.
In making the quantitative comparison of the ranking orders for the 3 data sets, the 60 entrepreneurial elements are classified under the 4 inclusive entrepreneurship ingredients.

Table IV Inclusive Entrepreneurship table

Entrepreneurial Characteristics	CH	26
Entrepreneurial Motivations	MO	7
Entrepreneurial Competencies	CT	13
Entrepreneurial Skills	SK	14

Then the PERA data sets ranking have been put into 6 ranking groups equally for comparison. Group A (1-10), Group B (11-20), Group C (21-30), Group D (31-40), Group E (41-50) and Group F (51-60).

Table V The PERA entrepreneurial elements data ranking Group A and B.

	SME		08032013Y		09032013Y	
Group A	CH	5	CH	3	CH	3
1-10	MO	2	MO	1	MO	4
	CT	1	CT	3	CT	1
	SK	2	SK	3	SK	1
Group B	CH	4	CH	4	CH	2
11- 20	MO	2	MO	2	MO	2
	CT	1	CT	2	CT	2
	SK	3	SK	2	SK	4

Table VI the Entrepreneurial elements ranking order matching between the SME, 08032013Y and 09032013Y.

SME		0803 2013 Y		0903 2013 Y	
CH match 08Y	9/ 26	CH match 09Y	9/ 26	CH match SME	11/ 26
MO match 08Y	0	MO match 09Y	0	MO match SME	3/7
CT match 08Y	4/ 13	CT match 09Y	10/ 13	CT match SME	4/ 13
SK match 08Y	2/ 14	SK match 09Y	3/ 14	SK match SME	1/ 14

Refer to the PERA result, for the top 10 elements of the SME entrepreneurs, the Entrepreneurial Characteristics and the Entrepreneurial Motivations are considered be more important, there are 5 Entrepreneurial Characteristics elements: Honesty, Undertake, Responsibility, concentration and Preparation. 2 Entrepreneurial Motivations elements: Self Determination and Perseverance. 1 Entrepreneurial Competence element: Interpersonal. 2 Entrepreneurial Skills element: Problem Solving and Analytical. For the SME entrepreneurs, the personal characters and intrinsic motivations are the key factors of the entrepreneurship. This result is fully agreed with the interview findings. One important example and comment given by the respondents is that honesty is very important for an entrepreneur when he/she starts up his/her business. Over the starting period, it is difficult to compete with those who already established the business in experience, operation scale and resources. Honesty is the most important element for the youth entrepreneurs. Only when you get the trust from your very few customers initially, they will give you more opportunity and business chance.

For the 08032013Y youth entrepreneurs, the Entrepreneurial Skills and the Entrepreneurial Competence are considered be more important. For the top 10 elements, there are 3 Entrepreneurial Skills elements: Judgment, Decision making and Communication. 3 Entrepreneurial Competence elements: Leadership, Observation and Interpersonal. 3 Entrepreneurial Characteristics elements: Self Confidence, Responsibility and Self Management. 1 Entrepreneurial Motivations element: Positive.

For the 09032013Y youth entrepreneurs, for the top 10 elements the Entrepreneurial Motivations and the Entrepreneurial Characteristics are considered be more important. 4 Entrepreneurial Motivations elements: Perseverance, Self Determination, Positive and Self Initiative. 3 Entrepreneurial Characteristics elements: Undertake, Self Confidence and Passion. 2 Entrepreneurial Competence elements: Leadership and Interpersonal. 1 important Entrepreneurial Skill element: Communication.

The youth entrepreneurs believe that the Entrepreneurial Competence and Entrepreneurial Skills are more important for the entrepreneurship. They put more emphasis on the extrinsic factors. The internal Entrepreneurial Characteristics such as Honesty, Concentration and Preparation has been ranked for much less important. These important elements may be the ingredients of the entrepreneurship that the youth entrepreneurs are missing.

Interpersonal is specified by all three groups as an important entrepreneurial element. In Hong Kong and China, it is a common believe that the connections and relationships are important. Interpersonal and Communication can create more business opportunities in the business area and it is important during the start up period.

Entrepreneurial Motivation is one of the main ingredient of the entrepreneurship. From the research, Self Determination has been concluded as one of the most important entrepreneurial element of the entrepreneurship and it is covered by the Entrepreneurial Motivation. Empirically I fully agree the importance of the Self Determination in the entrepreneurship study.
Self Determination Theory (SDT) appeared in the mid-1980s, it represents a broad framework for the study of human motivation and personality. SDT has been applied in many fields: work, sports, education and health care. It has been widely used to examine people's life goal or aspirations. Through the literature search, the paper or article about the SDT in relating to the Entrepreneurship – Entrepreneurial Motivations is empty. Personally I believe the applying of the SDT in factorizing the entrepreneurship - Entrepreneurial Motivations will be an important study in the entrepreneurship research.

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Corporate Social Responsibility Strategies of Petroleum Refinery Firms in Thailand

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Abstract

The purpose of the research is to study the strategy and tactics of petroleum refinery firms, and to develop the innovative concepts of creating corporate social responsibility (CSR) strategy. The qualitative interviews were conducted among three groups of key informants; firstly, seven executives from petroleum refinery firms; secondly, five community heads and one local district politician and also six involved specialists on CSR strategy of petroleum fields. Data collected from all groups analyzed by content analysis method. The results are preliminary summarize. Then, they rechecked by reflection of key executives of petroleum refinery firms with checking the gauge on five rating scales which considered with weight mean score. Finally they synthesized to be the new findings which are a valuable discovery that leads to be an innovative research.

The findings are six CSR strategies of petroleum refinery firms, which are synthesized to be CSR Leverage Strategies, which consist of 2 parts. The first part is a group of Real CSR Strategies. There are 1) Volunteer Spirit and Skill Development Strategy which need to be implemented first, and then followed by 2) Core Business and Supply Chain Development Strategy for reducing pollution by developing core business parallel to developing mainstream and downstream of supply chain and 3) Community Relations and Empowerment Development Strategies approached in order to develop communities by building good relationships before empowering them. The second part is a group of CSR Efficiency & Effectiveness Enhancing Strategies, which support or drive the Real CSR Strategies. There are (1) CSR Communication Strategy, (2) CSR Innovation Strategy and (3) CSR Alliance Strategy. The execution of both Real CSR Strategies and CSR Efficiency & Effectiveness Enhancing Strategies will bring the capability of petroleum refinery firms to implement more efficiently and effectively on the CSR strategy.

Keywords: CSR, Efficiency, Effectiveness, Innovation, Strategy

1. Introduction

Throughout the past, global public and global activist organizations such as United Nations (UN), International Organization for Standardization (ISO) and Greenpeace group have all been interested and concerned in social and environmental problems. Especially global warming and climate change problems, whether sea levels rise, severe natural disasters, the change of seasons or the threat of substantial ecosystem damage. Using fossil fuel for economic activities is the main cause of greenhouse gas being released into atmosphere. In Thailand the greenhouse gases released 69.9% from using energy reported by Thailand greenhouse gas management organization in 2010 and 55% of that energy was petroleum fuel from annual report 2010 of department of alternative energy development and efficiency. So CSR concepts are the social impact includes internal and external organization to sustain in business system, ecosystem and equality systems in the social environment. The effect of petroleum fuel is a release of greenhouse gas (CO_2) and other pollutants. CSR concepts are used in petroleum refinery business, and CSR strategies have to be developed. These are cause, which motivate and inspire to the researcher to study "CSR Strategies of Petroleum Refinery Firms".

The Objectives

To study CSR strategies and tactics of petroleum refinery firms and to develop innovative concepts of creating CSR strategies of petroleum refinery firms.

Benefit Expected to Be Received

Petroleum refinery firms and involved businesses can use the innovative concepts of creating CSR strategies to guide their CSR strategies for survival and growth of their organizations.

The Public Sector takes developing public minds and CSR skills. And communities take supporting and developing strengthened communities for a good ecosystem and a good economy.

Government sector can use research findings to guide policies and regulations formulation: economic, social, political, technological, management and environment that involve CSR of petroleum refinery firms.

2. Literature Review

Corporate Social Responsibility (CSR)

Important definitions from many fields collected in the table below.

Table 1 Definitions of Corporate Social Responsibility

Academic	Definitions of Corporate Social Responsibility
Kotler & Lee (2005)	The mission to improve well-being of society through business by the firm mind.
Werther, Jr. & Chandler (2006)	Method and result of the business make profit from society and pay back to society.
Savitz & Weber (2006)	The business that aimed at creating or maintaining the interest of social groups outside the business.

In conclusion, definitions of CSR that compose of 2 dimensions are 1) dimension of processes and 2) dimension of results.

Stakeholder Theory

Stakeholder as a group of people or individual, which can impact to or effect of organization's managing (Freeman, 1984).

Corporate Social Responsibility Strategic Concepts

Important CSR strategic concepts collected and can divide in 3 groups. Details are as follows.

Staff development strategic concepts

Implementation of corporate social responsibility is good and employees will be happy to be help others (Wiriyapan, 2002) said that the happiness will start when feeling sufficient and once greed, egoism and mental decline have sufficiently been reduced. Consumption will be reduced as necessary. Other sufficient benefits from this will be that it encourages employees to help others and do more socially responsible practices that would greatly enhance their skills and knowledge endlessly that is the "development cycle". Furthermore, the spiral of intelligence that is, when individual and organizations acting job, learning, exchange and raise the level of knowledge and the knowledge, skills and abilities will gradually be contemplated to extend the circulation spiral at large (Kaewtep, 2008).

Manufacturing development strategic concepts

The value chain can create value to ongoing activities. All have to consider sustainable development (Savitz & Weber, 2006). Besides the internal development process of production we have to change partners to create shared value network of strategic partners. The components of green industry conceptual framework for 5 factors; they are cooperative green group, development of products level, green supply network, green demand market and government policy (Thai Industrial Standards Institute, 2011).

Community development strategic concepts

The principle of sustainable development strategies has to develop a sustainable economic society and the environment together in harmony. Businesses need to help well-being of community better, so they need to strengthen the economic base of the underlying social relations in the community, culture and environment or economic that integrates linking mind, social factors and environments with balance. And also as the economy of the district, by the district and to the district, which means public participation (Vasi, 1999).

Research Papers That Related to Corporate Social Responsibility Strategy

CSR strategy: Strategic choices and the global consideration (Galbreath, 2006), Total Quality Management (TQM) and CSR (Ghobadian, Gallear and Hopkins, 2007). The combination of small and medium sized enterprises in the management of corporate social responsibility in the supply chain (Pedersen, 2009). The philanthropy of companies in Russia: evidence from a national research competition award (Blagov and Petrova-Savchenko, 2012). Integration of social responsibility and stakeholder management into firm strategy: a case study of The CAN organization (Vélaz, Sison and Fontrodona, 2007). According to the results summarized the CSR strategies are as follows:

Profitable Strategies: The shareholders responsible to society for profits such as the reciprocal strategy that is responsible to share the benefits to the community or the related market.

External environmental Management strategies such as social marketing, public relations, create an atmosphere and a strong CSR values and pre-marketing building.

Staff development strategies, such as strategic human resources management and CSR knowledge sharing.

Alliance Strategies, such as linking stakeholder targeted groups with activities of CSR and the development of CSR network for a good environment and a good society.

Impact reducing strategies such as linking the CSR activities into business processes, integrating CSR in TQM and supply chain management towards environmental and social dimensions.

Community and Social development strategies such as the creating CSR shared values with community, community participating in CSR and altruistic behavior such as helping society and donation.

Conceptual Framework

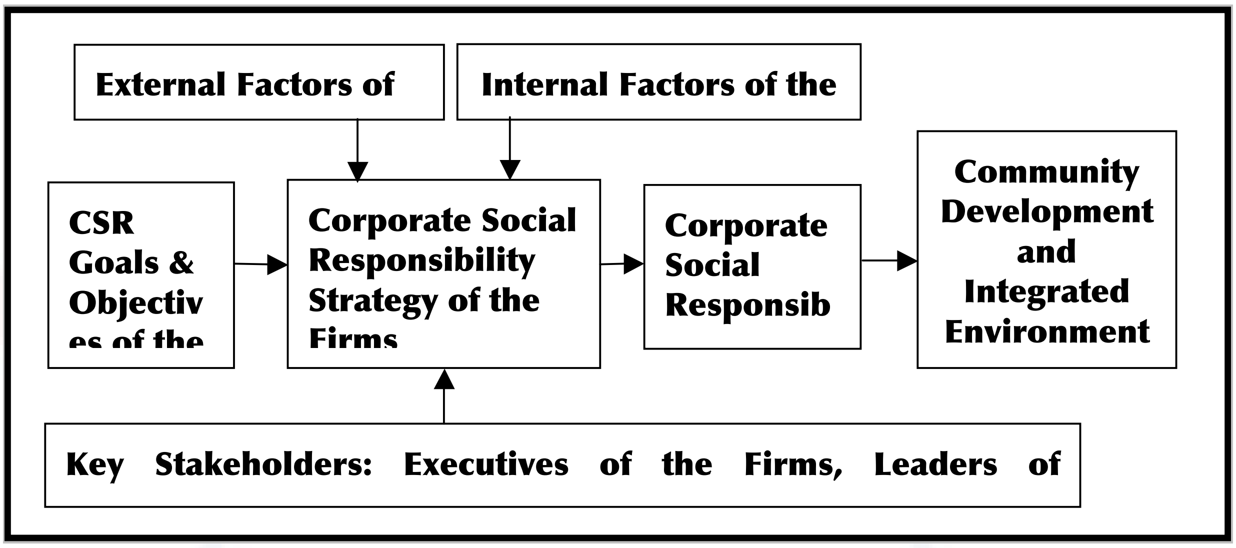

Figure 1 Conceptual Framework

3. Research Methodology

This research is designed by using a qualitative method, in-depth interview and semi-structured interview with CSR points: objectives, strategies, tactics and operations of CSR and important factors for CSR strategy formulation of petroleum refinery firms. The Researcher determined fields and key informants by purposive samplings that are as follows:

1. Fields are petroleum refinery firms that register on the stock exchange of Thailand and have a capacity of at least 100,000 barrels a day. They are Thai Oil Plc, IRPC Plc, Esso (Thailand) Plc, PTT Aromatics and Refining Plc. and Bangchak Petroleum Plc.

2. Key Informants divided into 3 groups, there are 1) leaders of petroleum refinery firms: 7 top executives who take CSR responsibility about determining policies and strategies and allocate resources, 2) 5 Community leaders who are elected by that community citizen and 5 communities located nearest the petroleum refineries 3) 6 CSR experts: an involved NGO leader, 2 CSR club leaders and 3 experts of PTTEP Plc. and PTT Plc.

When obtained the data, the accuracy and completeness of data are checked and the data from 3 groups of key informants are checked by triangulation. The qualitative data analysis executed along with data collecting until eventually the content analysis conduct to conclusion of objective response and new finding. And then the finding is rechecked by reflection of key executives of petroleum refinery firms who use CSR strategies to summarize the chance of strategies in practice, by checking the gauge on 5 rating scales which considered with weight mean score. Finally all information synthesized to be concepts to create CSR strategies of petroleum refinery firms.

4. Results and Discussion
Monitoring the Result of Using Corporate Social Responsibility Strategy

The research found that the CSR strategies of petroleum refinery firms are 6 strategies and divide into 2 groups that are; the "most" level group consisting of strategies number 1-3 (VCC) and another group with other values consisting of strategies number 4-6 (CIA), details are in the table below.

Table 2 Monitoring the Result of Using Corporate Social Responsibility Strategy

Important strategies	Score of actual strategy implementation						
	A	B	C	D	E	Average	Interpretation
1. Volunteer Spirit and Skill Development Strategy: V	4	5	5	4	4	4.40	Most
2. Core Business and Supply Chain Development Strategy: C	5	4	4	5	5	4.60	Most
3. Community Relations and Strength Development Strategy: C	5	5	5	5	5	5.00	Most
4. CSR Communication Strategy: C	4	3	5	3	3	3.60	Very
5. CSR Innovation Strategy: I	3	3	4	3	3	3.20	Moderate
6. CSR Alliance Strategy: A	3	3	3	3	3	3.00	Moderate

Note: A, B, C, D and E are assumed name.

The Big Gap of Developing CSR Strategies

The checked results of 6 strategies in CSR by the key executives of the firms that are involved in corporate social responsibility policy obviously see the score that the strategies are divided into 2 groups. Group 1(VCC) has the "most" level strategy usage and Group 2 (CIA) C has a "very" level strategy usage and I and A have "moderate" level, that shows that there has been a focus on strategy of group 1 more than group 2 and that means not so much focus on strategy of group 2 as it should be because group 2 uses strategy in a natural way and a not too serious of strategy usage. Therefore it is the big gap of CSR strategies in developing CSR strategies to increase more efficiency and effectiveness.

Power of CSR Leverage

The strategies are divided into 2 groups that is the difference in qualification of each group, and they compared with financial leverage concept and mechanical leverage concept for efficiency and effectiveness increasing points. The group 1 is Real CSR Strategies (VCC) increased efficiency and effectiveness by the group 2 which is CSR Efficiency and Effectiveness Enhancing Strategies (CIA) as in the details below:

Power of financial leverage

It can be explained that if the rate of return from assets more than interest rate, the rate of return will be increased by debt or on the other hand is increasing efficiency and effectiveness. (Garryson and Brewer, 2008) So it can be explained with the example:

(1) Equity Increase Case Equity 100 $ return 10 $ = 10%

Increase equity 100 **$ return 10 $ = 10%**

Total Equity 200 $ return 20 $ = 10%

(10% after = 10% before)

(2) Debt Case Equity 100 $ return 10 $ = 10%

Debt 100 $ return 10 $ = 10%

Interest expense 5 **$** = **5%** (**Interest rate)**

Equity 100 $ return 15 $ = 15%

(15% after more than 10% before)

Remark: 10% and 15% are Rates of return

So the result in case of debt can increase rate of return to owner's equity more than increase equity case. That shows the efficiency and effectiveness of using debt.

Power of mechanical leverage

It can be explained that a bar pivoted at a fulcrum, so a lever can amplify an input force to provide a greater output force (Davidovits, 2008), which is said to provide leverage**.** The ratio of the output force to the input force is the ideal efficiency and effectiveness of the lever as in the picture below.

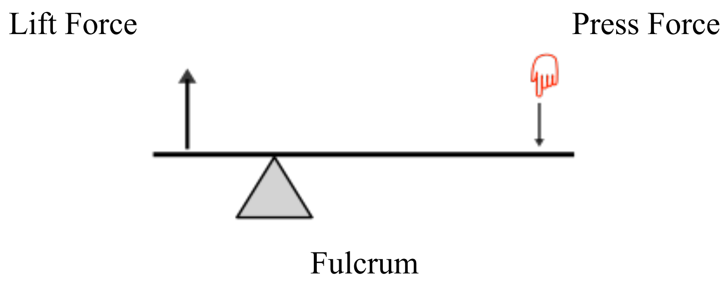

Figure 2 Mechanical Leverage

Comparison

The amplifying efficiency and effectiveness of financial leverage and mechanical leverage compared with the 2 groups of strategies that synthesized to be CSR Leverage Strategies. The first group is the Real CSR Strategies (VCC) and the second group is the CSR Efficiency and Effectiveness Enhancing Strategies (CIA). The CSR

Leverage Strategies is using the CSR Efficiency and Effectiveness Enhancing Strategies lever or reinforce or drive to Real CSR Strategies to increase efficiency and effectiveness as shown in the picture below.

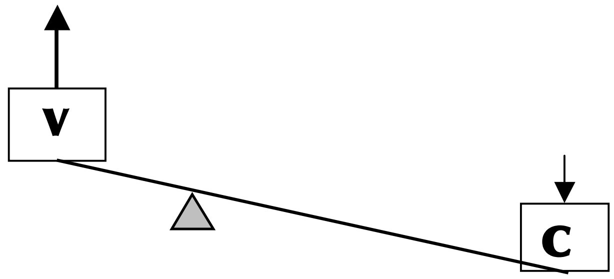

Figure 3 CSR Leverage Strategies

The likeness of CSR Leverage Strategy

The CSR Leverage Strategy has 2 parts. The first part is the Real CSR Strategies, which needs to be performed to maintain benefits of firms and communities and is called VCC strategy. The second part is CSR Efficiency and Effectiveness Enhancing Strategies, called CIA Strategy; which is the reinforcement or a drive to efficiency and effectiveness of Real CSR Strategies.

According to findings: the CSR Leverage Strategies related to Pareto's law or the unbalancing law 80/20 that the 20% can be effected to the 80% referring to the CSR Leverage Strategies, which is less input more effect on CSR work (Koch, 1998). Relating, also, to synergy concept that explained that to reinforce will effect efficiency and effectiveness as 1+1>2 (Hitt, Hoskisson and Ireland, 2007).

Power Map of CSR Leverage Strategies

To summarize from the referred research result above additionally, that for those 3 CSR Efficiency and Effectiveness Enhancing Strategies (CIA) will enhance to drive Real CSR Strategies (V or C or C). For instance, should the refinery business need to strengthen the community, which is delicate and also being a difficulty for petrochemical engineers. However, it is an ease for those core competent professional in this field. Thus, the firms shall determine the alliance from outsources whether there be co-development or not. If not, there need to be invited the alliances from outsources and consideration to discard or reduce the unnecessary methods or not, or where to add the necessary methods or not and how (including import factors of each methods). Plus, there is a need to consider further, that if it is value or not after being discarded, reduced, added by incremental efficient analysis; which is to develop the community strength (c) and to reduce the weakness of employees' community CSR skills (V) by adding the alliance who are NGOs and professionals in the field of developing communities, to join in. The employees shall share knowledge and skills with the professionals during the ongoing developing community session, this will accomplish for both employees' skills and the community benefits, for instance; as previous using 100 units input and get community output at 50 units, efficient value at 50/100=0.5. On the contrary, if the input is added 10% more or 10 more units and gets 50% more of output or 25 units, efficient value will increase at 25/10=2.5 and the total efficient value will be 75/110 = 0.68 from the adding professional alliance method, which means that they will get more efficient value or more value.

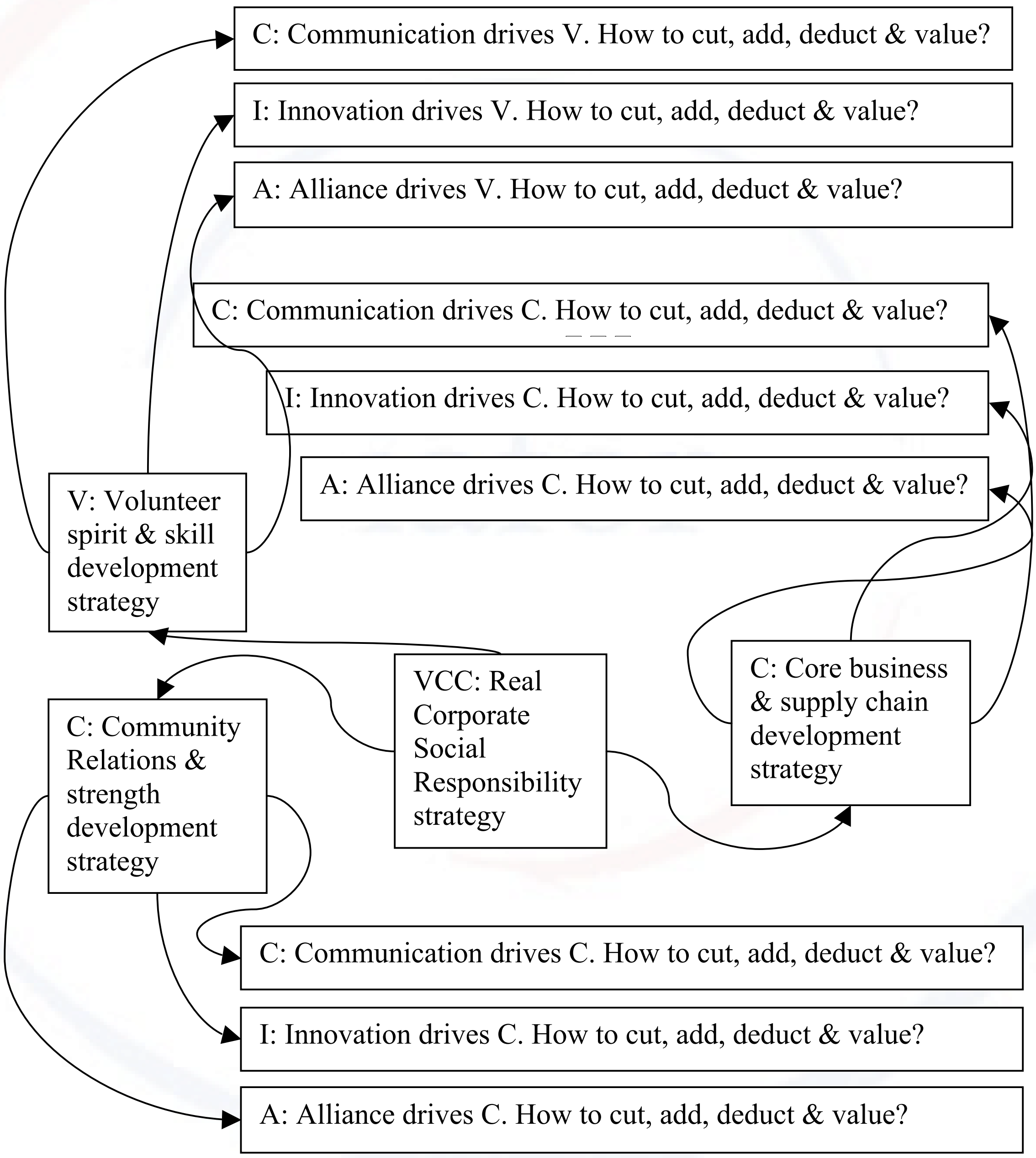

Figure 4 CSR Leverage Strategic Map

Follow through the research above, the researcher believes that the CSR Leverage Strategies that found, suits with refinery business in Thai context, which has the community culture as the main factor to cooperate in preserving the environment. To compare with the strategies as in context of other foreign countries belief, there of course will be the likeness and unlikeness. Therefore, to use the CSR Leverage Strategies applying is best to be used in Thailand.

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The Developed Model of Corporate Social Responsibility Reporting of Listed Companies in The Stock Exchange of Thailand

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Abstract

The purpose of the study was to study The Developed Model of Corporate Social Responsibility Reporting (CSR reporting) of Listed Companies in The Stock Exchange of Thailand. Three hundred and fifty data sets of questionnaires from the sample in the role of people relevant them. The statistics were applied structural equation model (SEM) with AMOS is used for analyzing confirmatory factor analysis (CFA) and causal relationships of structural equation. Key in format the role of people relevant development of model of Corporate Social Responsibility Reporting amount 23 were used in-depth interview the managements, regulation offices, auditors and professions in accounting. Research results revealed that: 1) the theoretical is corresponded with measurement model. All variables of model concluded Corporate Social Responsibility Reporting that the model can be explained to 96 percent (p-value < .001); and 2) Standard of Reporting do not influence with CSR reporting.

This research recommends that order to listed companies must have focus in the development of model of CSR reporting by referencing to key stakeholders, Company Characteristics, Reporting Process and Content of Report. The study with statistic confirmed that Standard of Reporting variable did not influence other variables, The outcome of additional analysis in depth-interview caused by the Standard of Reporting model is exactly started for Thailand and regulation must be have role to initiative this subject to introduce listed companies to have Reporting Standards utilizing which to beware social corporate responsibility.

Keywords-The Developed Model, Corporate Social Responsibility Reporting, SEM

1. Introduction

The Corporate Social Responsibility Reporting (CSR reporting) is necessity if stakeholders are to know and understand their economic social and environment impact (KPMG, 2008), the global economic grows rapidly which companies were reporting non-financial issues to stakeholders. CSR reporting is more than a key component of being a responsibility (Palenberg, Reinicke, & Witte, 2006). It has become an integral part of every company's relationship with primary stakeholders (employee, suppliers, customers, investors, communities and regulators) and secondary stakeholders (environment, NGO and media) which external and internal have pressured firms to report (Gray, Kouhy, & Lavers, 1995).

Listed Companies of The Stock Exchange of Thailand has to be summited the mandatory report such as Disclosure report concerning additional information (Form 56-1) and Annual Reports (Form 56-2) (Securities and Exchange Act, B.E. 2535, 1992), that to ensure market transparency and integrity, however some listed companies has to be summited voluntary report such as CSR reporting, Sustainability Report, Triple Bottom Line Report, Health, Safety and Environment Report and Community Report (Brammer & Pavelin, 2006).

This paper aims to develop a model on how the firms can put the CSR reporting which concern effect latent variables such as Stakeholders, Company Characteristics, Standard of Reporting, Report Process, and Content of Report.

2. Literature Review

Stakeholders theory show that corporate responses to different stakeholder groups how to send the information to society and explain which group is more important than another (Donaldson & Preston, 1995). Freeman's 1984 proposed that stakeholders are individual or any group who can affect or is affected by the achievement of a firm's purpose. A primary stakeholder is one without whose continuing participation the corporation cannot survive as a going concern without secondary stakeholders are influenced or affected by the corporation (Clarkson, 1995).

Company characteristics are size of companies which larger companies and the level of CSR reporting are more likely to make economic social and environment disclosure than small and medium-sized companies including industry group and financial information.(Gray, Javad, & Porter, 2001). Industry group is a more important factor impacting on CSR reporting which the different forms of voluntary disclosure on varies significantly across industries (Brammer & Pavelin, 2006) and many empirical studies evidence that industry influences CSR reporting which voluntary social disclosures (for example Gray, et al,1995; Adams, et al, 1998; Tagesson, et al, 2009).A sensitive industry group that resources is more disclosing environment more information in CSR reporting (Adams, et al, 1998).Financial Information such as profitability leverage that highly leveraged firms companies would have more a level CSR reporting that environmental disclosures than companies with low leverage (Brammer & Pavelin, 2006).

Standards and codes have helped firm in development of CSR reporting such as SA8000, Global Reporting Initiative's (GRI), Sustainability Reporting Guidelines and AA 1000 which the emerging global architecture are 1) Normative Frameworks provide substantive guidance on what constitutes good or acceptable levels of performance 2) Process Guidelines enable measurement, assurance and communication of performance 3) Management Systems provide integrated or issue specific management frameworks to guide the ongoing management of environmental and social impacts (Ligteringen, 2005). All these standards and codes have been developed in concept by principle and guidance with a wide range of stakeholders.

Reporting process has been developed by numerous organizations which announce to public. KPMG Sustainability survey in 2011 show that guideline reporting process into five components 1) Define report content 2) Ensure report quality 3) Set report boundaries 4) Include standards and Focused sustainability report which integrated financial reporting processes. In adding to Internation Finance Corporration which a member of the World Bank Group opportunities for involving in the GRI Reporting Process into eight components 1)Preparation 2) Consulting with Stakeholders 3)Planning 4)Data collection 5)Writing, Review and Editing 6) External verification 7)GRI Application Level 8)Production and Launch (Global Reporting Initative & International Finace Corporation, 2010). We find that reporting process have a concept PDCA stand for Plan, Do, Check, and Act used to analyze and develop Reporting process (Karrlof & lovingsson, 2005).

The triple bottom line (TBL) show that corporate social responsibility concept to performance activities of economic, environmental, and social when conducting business that concept idea business should aim three goals sustainability which different almost firm have only a goal focus within economic (Elkington, 1999). The companies and organizations should be created value multiple dimensions by TBL concepts which focus on performance on the financial and environmental dimensions of performance including social impacts that base concept GRI (Morhardt, Baird, & Freeman, 2002).

Many CSR reports are organized by key stakeholder then how to focus key CSR issue in report (Chapple & Moon, 2005). The corporate should to show that reporting formats in CSR reporting as 1) policy about social responsibility all level of management function such as on management letter, vision, mission, and goal 2) activities social responsibility that show how the cooperate done 3) key performance in activities that can improve continuous.

Regarding the literature review theory and concept above, the research hypotheses were thus developed and the developed model CSR reporting conceptual framework as show in finger 1 including dimension of latent variables and manifest variables in table 1.

H1: There is a direct positive significant relationship between Stakeholders and CSR reporting include indirect positive significant relationship which have a sub hypothesis such as 1) Company Characteristics 2) Standard of Reporting 3) Report Process and 4) and Content of Report as follow.
H1.1 There is a direct positive significant relationship between Stakeholders and CSR reporting.
H1.2 There is a direct positive significant relationship between Stakeholders and Company Characteristics.
H1.3 There is a direct positive significant relationship between Stakeholders and Standard of Reporting.
H2: There is a direct positive significant relationship Company Characteristics and CSR reporting include indirect positive significant relationship which have a sub hypothesis such as 1) Report Process and 2) and Content of Report as follow.
H2.1 There is a direct positive significant relationship between Company Characteristics and CSR reporting.
H2.2 There is a direct positive significant relationship between Company Characteristics and Report Process.
H2.3 There is a direct positive significant relationship between Company Characteristics and Content of Report.
H3: There is a direct positive significant relationship Standard of Reporting and CSR reporting include indirect positive significant relationship which have a sub hypothesis such as 1) Company Characteristics 2) Report Process and 3) Content of Report.
H3.1 There is a direct significant relationship between Standard of Reporting and CSR reporting
H3.2 There is a direct significant relationship between Standard of Reporting and Company Characteristics.
H3.3 There is a direct positive significant relationship between Standard of Reporting and Report Process.
H3.4 There is a direct positive significant relationship between Standard of Reporting and Content of Report.
H4 : There is a direct positive significant relationship Company Characteristics and CSR reporting include indirect positive significant relationship which have a sub hypothesis such as 1) Report Process and 2) and Content of Report
H4.1 There is a direct positive significant relationship between Company Characteristics and CSR reporting
H4.2 There is a direct positive significant relationship between Company Characteristics and Report Process
H5: There is a direct positive significant relationship Content of Report and CSR reporting.

3. Research Methodology

3.1 The Research Design: Both quantitative and qualitative research methodology are employed.
3.2 Population and Sample: Based on the Listed Companies in The Stock Exchange of Thailand as at 31 Aug 2009, regulators, audit firms and institute of accounting education which people is relevant role of CSR reporting, such as management directors, accountants, accounting lecturer, and officer regulators, as quantitative research methodology. Interviewed key informants were the managements, regulation offices, auditors and professions in accounting by qualitative research methodology.
3.3 Instruments: In-depth interviews from with confirm model and rating scale questionnaires were developed through literature review and was used content validity by experts including construct validity with CFA , then questionnaires pre-test for reliability was Cronbach's Alpha amount 0.949.

4. Results

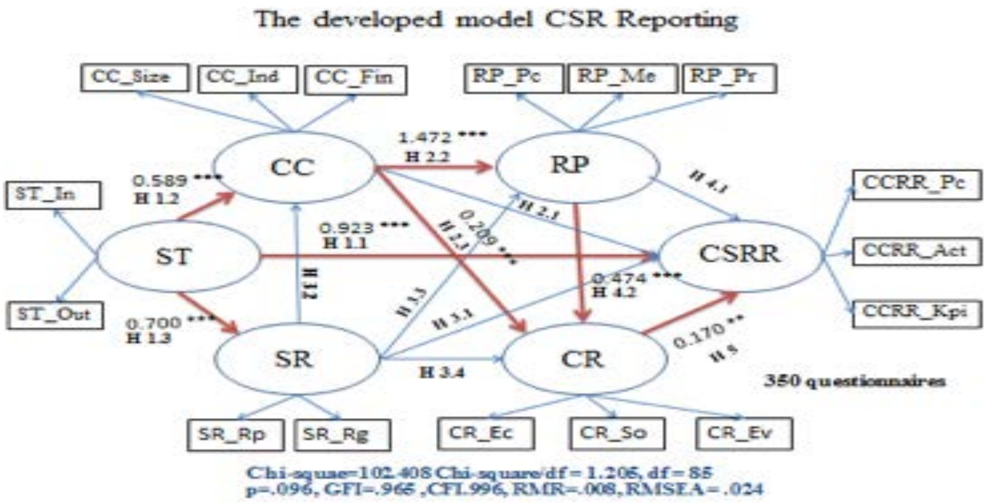

Figure 1 Conceptual Framework and Results

Table 1 Dimension of Latent Variables and Manifest Variables

Items	Latent Variables	Symbols	items	Manifest Variables	Symbols
1.	Stakeholders	ST	1.1	Primary Stakeholder	ST_In
			1.2	Secondary Stakeholder	ST_Out
2	Company Characteristics	CC	2.1	Size	CC_Size
			2.2	Industry group	CC_Ind
			2.3	Financial Information	CC_Fin
3	Standard of Reporting	SR	3.1	Reporting Principles	SR_Rp
			3.2	Reporting Guidance	SR_Rg
4	Report Process	RP	4.1	Prepare and Correction	RP_Pc
			4.2	Monitor	RP_Me
			4.3	Presentation	RP_Pr
5	Content of Report	CR	5.1	Economic	CR_Ec
			5.2	Social	CR_So
			5.3	Environment	CR_Ev
6	CSR Reporting	CCRR	6.1	Policy	CCRR_Pc
			6.2	Activities	CCRR_At
			6.3	indicator	CCRR_Kpi

Table 2 Results of Confirmatory Factor Analysis (CFA)

Items	Symbols	items	Manifest Variables	Symbols	Standardized Coefficients		S.E.	C..R..	Sig		SMC (R2)
					variables	error			variables	error	
1	ST	1.1	Primary Stakeholder	ST_In	0.991	0.003	0.012	0.225	***	0.822	0.982
		1.2	Secondary Stakeholder	ST_Out	0.801	0.080	0.017	4.624	***	***	0.641
2	CC	2.1	Size	CC_Size	0.888	0.056	0.011	5.050	***	***	0.788
		2.2	Industry group	CC_Ind	0.928	0.022	0.006	3.587	***	***	0.818
		2.3	Financial Information	CC_Fin	0.904	0.061	0.014	4.252	***	***	0.860
3	SR	3.1	Reporting Principles	SR_Rp	0.833	0.079	0.019	4.104	***	***	0.918
		3.2	Reporting Guidance	SR_Rg	0.958	0.016	0.015	1.076	***	0.282	0.694
4	RP	4.1	Prepare and Correction	RP_Pc	0.991	0.005	0.011	0.462	***	0.644	0.856
		4.2	Monitor	RP_Me	0.945	0.025	0.008	3.050	***	0.002	0.893
		4.3	Presentation	RP_Pr	0.925	0.032	0.008	3.885	***	***	0.983
5	CR	5.1	Economic	CR_Ec	0.949	0.024	0.009	2.677	***	0.007	0.697
		5.2	Social	CR_So	0.919	0.035	0.008	4.359	***	***	0.844
		5.3	Environment	CR_Ev	0.835	0.058	0.010	5.541	***	***	0.900
6	CCRR	6.1	Policy	CCRR_Pc	0.824	0.070	0.011	6.417	***	***	0.683
		6.2	Activities	CCRR_At	0.828	0.052	0.009	5.985	***	***	0.685
		6.3	indicator	CCRR_Kpi	0.827	0.040	0.008	5.010	***	***	0.678

Note: * $p<0.05$, ** $p<0.01$, *** $p<0.001$

Base on statistical report in table 2 confirmatory factor analysis, the results are shown that all latent variables is effect to manifest variables. For multiple regressions analysis outputs table 2 we can conduct in order to confirm the results by dividing six group models as listed in the following equations:

A. Measurement model of Exogenous Stakeholders variable as follow:

ST_In = 0.991 ST, Error var = 0.003, SMC (R^2) = 0.982…………………. (1)
(0.012)
0.225***

ST_Out = 0.801 ST, Error var = 0.080, SMC (R^2)= 0.641……………….. (2)
(0.017)
4.624***

Equations (1) and (2) were shown that Primary Stakeholder and Secondary Stakeholder have correlation to Stakeholders which 98.2% and 64.1% respectively.

B. Measurement model of Endogenous variables as follow**:**

B.1 Company Characteristics

CC_Size = 0.888 CC, Error var = 0.056, SMC (R^2) = 0.788……………….. (3)
(0.011)
5.050***
CC_Ind = 0.928 CC, Error var = 0.022, SMC (R^2)= 0.818……………….. (4)
(0.006)
3.587***
CC_Fin = 0.904 CC, Error var = 0.061, SMC (R^2)= 0.860……………….. (5)
(0.014)
4.252***

Equations (3), (4) and (5) were shown that Size, Industry group, and Financial have correlation to Company Characteristics which 78.8%, 81.8% and 86.0% respectively.

B.2 Standard of Reporting
SR_Rp = 0.833 SR, Error var = 0.079, SMC (R^2)= 0.918……………….. (6)
(0.019)
4.104***

SR_Rg = 0.958 SR, Error var = 0.016, SMC (R^2)= 0.694……………….. (7)
(0.015)
1.076***

Equations (6) and (7) were shown that Reporting Principles and Reporting Guidance have correlation to Standard of Reporting which 91.8% and 69.4% respectively.

B.3 Report Process

RP_Pc = 0.991 RP, Error var = 0.005, SMC (R^2)= 0.856 ………………..(8)
(0.011)
0.462***
RP_Me = 0.945 RP, Error var = 0.025, SMC (R^2)= 0.893…………………(9)
(0.008)

3.050***

RP_Pr = 0.925 RP, Error var = 0.032, SMC (R^2)= 0.983………………….(10)

(0.008)

3.885***

Equations (8), (9) and (10) were shown that Prepare and Correction, Monitor, and Presentation have correlation to Report Process which 85.6%, 89.3% and 98.3% respectively.

B.4 Content of Report

CR_Ec = 0.949 CR, Error var = 0.024, SMC (R^2)= 0.697………………..(11)

(0.009)

2.677***

CR_So = 0.9 19 CR, Error var = 0.035, SMC (R^2)= 0.844 ………………(12)

(0.008)

4.359***

CR_Ev = 0.835 CR, Error var = 0.058, SMC (R^2) = 0.900………………. (13)

(0.010)

5.541***

Equations (11), (12) and (13) were shown that Economic, Social, and Environment have correlation to Content of Report which 69.7%, 84.4% and 90.0% respectively.

B.5 CSR Reporting

CSRR_Pc = 0.824 CSRR, Error var = 0.070, SMC (R^2)= 0.683 ………………..(14)

(0.011)

6.417***

CSRR_Pc = 0.828 CSRR, Error var = 0.052, SMC (R^2)= 0.685 ………………..(15)

(0.009)

5.3985***

CSRR_Kpi = 0.827 CSRR, Error var = 0.040, SMC (R^2)= 0.678……………….(16)

(0.008)

5.010***

Equations (14), (15) and (16) were shown that Policy, Activities, and indicator have correlation to Report Process which 68.3%, 68.5% and 67.8% respectively.

Table 3 Hypotheses Test

Item	Hypothesis	Effect variable	Test Hypothesis	Regression Weights	S.E.	t-value C.R.	P-Value
1	H1.1	ST ---> CSRR	Accepted	0.923	0.126	6.597	***
2	H1.2	ST ---> CC	Accepted	0.589	0.075	7.165	***
3	H1.3	ST ---> SR	Accepted	0.700	0.050	12.687	***
4	H2.1	CC ---> CSRR	Not Accepted	-0.007	0.054	-0.130	0.896
5	H2.2	CC ---> RP	Accepted	1.472	0.232	6.433	***
6	H2.3	CC ---> CR	Accepted	0.209	0.063	3.450	***
7	H3.1	SR ---> CSRR	Not Accepted	0.088	0.064	1.367	0.172
8	H3.2	SR ---> CC	Not Accepted	0.039	0.082	0.479	0.632
9	H3.3	SR ---> RP	Not Accepted	-0.104	0.144	-0.734	0.463
10	H3.4	SR ---> CR	Not Accepted	0.094	0.070	1.393	0.164
11	H4.1	RP ---> CSRR	Not Accepted	-0.143	0.099	-1.398	0.162
12	H4.2	RP ---> CR	Accepted	0.474	0.071	6.837	***
13	H5	CR ---> CSRR	Accepted	0.170	0.054	2.968	0.003**

Note: R^2 of Latent Variables: SR = 0.490, CC=0.381, RP=0.754, CR=0.440, CSRR=0.948

Base on statistical report in table 3 and figure 1, the results are shown that the model goodness-of-fit was $\chi 2$=102.408 at p=0.96, $\chi 2$/df=1.205, CFI=0.965, RMR=0.008, RMSEA=0.024.
The model hypothesis test accepted: H1.1= ST $\rightarrow$ CSRR sig = 0.000, H1.2= ST $\rightarrow$ CC sig = 0.000, H1.3= ST $\rightarrow$ SR sig = 0.000, H2.2= CC $\rightarrow$ RP sig = 0.000, H2.3= CC $\rightarrow$ CR sig = 0.000
H4.2= RP $\rightarrow$ CR sig = 0.000, H5= CR $\rightarrow$ CSRR sig = 0.003. Seven accepted hypotheses can explain to effect and indirect effect CSR reporting on table 3.

Table 4 Path analysis

Effect to CSRR	ST	CC	SR	RP	CR
Direct	0.923	0.000	0.000	0.000	0.170
Indirect	0.091	0.155	0.000	0.081	0.000
Total Effect	1.014	0.155	0.000	0.081	0.170

Base on statistical report in table 4 and figure 1, the results are shown that path analysis direct and indirect effect to CSR reporting. Direct effect CSR reporting were stakeholder and content of report amount 0.923 and 0.170 respectively. Indirect effect CSR reporting were stakeholder, company characteristics, report process amount

0.091, 0.155 and 0.081 respectively. To additional total effect CSR reporting were stakeholder, company characteristics, report process and content of report amount 1.014, 0.155, 0.081 and 0.170 respectively. Standard of Reporting does not to be effect other latent valuables.

For multiple regressions analysis outputs table 3 we can conduct in order to confirm the results by dividing five models as listed in the following equations

Structural Equation Modeling (SEM)

Model I: CC = 0.589 ST + 0.039 SR, R2 = 0.381 (1)
(0.075) (0.082)
7.165*** 0.479

Model II: SR = 0.700 ST, R2 = 0.490 (2)
(0.050)
12.687***

Model III: RP = 1.472 CC + (-0.104) SR, R2 = 0.754 (3)
(0.232) (0.144)
6.433*** -0.734

Model IV: CR = 0.209 CC + 0.094 SR + 0.474 RP, R2=0.440 (4)
(0.063) (0.070) (0.071)
3.45*** 1.393 6.837***

Model V: CSRR = 0.923 ST + (-0.007) CC + 0.088 SR + (-0.143) RP + 0.170 CR, R2 = 0.948 (5)
(0.126) (0.054) (0.064) (0.099) (0.054)
6.597*** -0.130 1.367 -1.398 2.968**

Note: * p<0.05 , ** p<0.01 , *** p<0.001

Result of interview almost group of key-informant support this model can be used and have effect to CSR reporting. Some professions in accounting not accept in this model because the model was very complex which have a lot of variables but some latent variables should include manifest variables such as content of report and report process. All interviewees support on standard report and someone said that "*CSR reporting should prepare with standard report that can improve corporate social responsibility*", was significant to effect CSR reporting and others. Otherwise the result of quantitative was shown that it is not significant effect all latent variable which CSR reporting in Thailand did not used standard report that absences of mandatory social and environmental disclosures (Belal & Cooper, 2011).

4. Limitations

Researchers was developed a new concept model by review literature and interview key-informants to support it that model never test to be suitable for corporates process in CSR reporting.

5. Conclusion and future research

This paper shows that stakeholders have significant direct effect to CSR reporting and indirect effect through as company characteristics, report process, and content of report that confirm how to applied CSR reporting. Standards report to be importance was not significant effect to CSR reporting in Thailand. Otherwise key-informant supported to standard report can help the firm to add value of strategy social responsibility (KPMG, 2008)

Regulators were pressured disclosure social and environment in mandatory report in developing countries (Sumiami, Haslinda, & Lehman, 2007). Thus regulators should support and introduce standards report and developed them to mandatory report.

The future researcher should study what standards non-financial report is suitable in developing countries.

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Corporate Social Responsibility Assurance - the impact of King III

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Abstract

Today, society is increasingly expecting company operations not undermine the ability of future generations to meet their own needs. Companies are accordingly expected to account to stakeholders about the non-financial impacts of their operations on the economy, on the environment and on society. Acknowledging the adverse consequences of being perceived as ‘irresponsible corporate citizens’, some companies may falsely represent their stakeholder accountability through ‘green-wash’. This paper argues that this risk may be ameliorated through the provision of independent assurance on corporate social responsibility (CSR) disclosures.

In South Africa, King III is driving the institutionalisation of CSR reporting and assurance practices. This paper represents a longitudinal study to establish the impact of King III on CSR assurance practices at the Top 200 companies listed on the Johannesburg Stock Exchange (JSE). Using a content analysis of the CSR assurance reports issued by the selected companies for the respective reporting periods before and after the implementation of King III, this research identifies the primary CSR assurance characteristics. Contrary to the findings of other international research that established that the primary providers of CSR assurance were specialist CSR assurors or certification bodies, this paper reveals that in South Africa, audit firms and particularly the Big 4 audit firms, were the primary providers of independent CSR assurance.

As one of the first countries to impose a need for independent CSR assurance, albeit indirectly through the JSE regulations, this paper provides an indication of how CSR assurance practices may develop around the world.Nowadays, Family business becomes extremely vital to the economic well-being all over the world. The understanding of the complexity and dynamics of a family business is increasingly important. Given, the special relational attachments, decision making in Family business is more complex than in other forms of organization. This paper explored the main effect of age diversity and the moderating effect of expertise diversity on decision quality and efficiency. Interestingly and paradoxically, the results indicated that, age diversity is positively associated with decision quality, while it is negatively associated with decision efficiency. Furthermore, expertise diversity did not generate direct main impact on decision, while its moderation effect has not been significant with collected thirty decision-making teams in Indonesian family businesses. Such results implicate that in family business in some culture, professional impacts may be in questionable function and that the long-term, trait-based composition of human group may surpress over the professional factors.

Key words

Assurance	assurance opinion
assurance provider	Big 4 audit firms
corporate social responsibility (CSR)	Johannesburg Stock Exchange (JSE)
King III	South Africa

1. Introduction

Around the world, society are demanding that business and government must share collective responsibility for ensuring that economic development does not compromise the ability of future generations to meet their own needs. The Brundtland Commission emphasised the importance of addressing the adverse environmental, social and economic consequences of corporate activity (UNCSD, 2007). Today, this need is elevated by global concerns about the role of the corporation to secure a sustainable future for mankind.

While some companies are voluntarily responding to this societal expectation simply because it is the 'right thing' to do as responsible corporate citizens, others have adopted an 'enlightened shareholder perspective' that recognises the 'instrumental value' of considering stakeholder interests and expectations. In this regard, stakeholder interests are only considered to the extent that it would be in the interests of the company, and accordingly the shareholders, to do so.

In order to capitalise on the positive association with strong corporate social responsibility [CSR] performance the risk emerges that unscrupulous companies may be tempted to falsify their CSR disclosures. This 'green-wash' is may be described as being the cynical intention to deceive through selectively disclosing CSR-related information (Alves, 2009; Delmas, & Burbano, 2011; Lyon & Maxwell, 2011). Companies disclosing their CSR performance may therefore not necessarily be good corporate citizens, but may simply wish to favourably influence stakeholder perceptions (Aras & Crowther, 2008; Okoye, 2009:624).

Principle 9.3 of the King Code of Governance for South Africa of 2009 [King III], is a voluntary attempt by organisations to enhance their accountability by providing independent assurance on their CSR disclosures. Despite King III being a voluntary governance code, the Johannesburg Stock Exchange [JSE] regulations require all listed companies to apply the King III principles, or to explain why it has not.

2. Research approach and methodology

The regulation requiring JSE-listed companies to adopt the King III principles on an 'apply or explain' basis, makes confining the study population to JSE-listed companies appropriate. Slack resource theory suggests that large and successful companies are more likely to have the resources to provide CSR assurance, justifies the further delineation of the study sample to the largest JSE-listed companies (KPMG, 2011:11; Saleh, 2009:131). A purposive non-probability convenience sample (Barbour, 2001:1115–1116; Welman, Kruger & Mitchell, 2011:69) was accordingly used to restrict the research sample to the largest 200 JSE-listed companies (by market capitalisation). Within this sample, one company was subsequently delisted and seven companies incorporated their corporate reports into their holding company annual publications, adjusting the sample to 192 companies. Despite only representing 53% of JSE-listed companies on 30th April 2012, sample companies accounted for 99.3% of the total JSE market capitalisation.

This research comprised two primarily qualitative empirical phases. In the first phase, the annual/sustainability reports were examined to identify the extent to which CSR assurance is provided. In the second phase, identified CSR assurance reports were critically analysed.

Since the research objective was to consider the impact of King III on CSR assurance practices a longitudinal study examined the published CSR assurance reports for 2007/8, 2010/1 and 2011/2. It is however, acknowledged that selecting a non-representative purposive qualitative sample implies that any inferences drawn, apply to the selected sample companies only, and should not therefore be generalised across the population.

3.1 Background

Corporate success is traditionally measured in terms of financial performance. Kolk (2008:3–4) posits that corporate accountability extends beyond shareholders, to include other legitimate stakeholders. At a micro level, companies pursue objectives primarily for the benefit of their shareholders, whereas at a macro level it may be argued that companies should consider the impact of their operations on society as a whole (Keasey*,* Thompson & Wright, 2005:1–3). These do not represent two absolute positions, with real company practices falling somewhere along a continuum. Companies are accordingly expected to balance their perceived responsibilities to their various stakeholders, even if only from an instrumentalist perspective (Sadler & Lloyd, 2009; Porter & Kramer, 2002).

3.2 King III

The third King Code on Governance for South Africa (King III argued that "*planet, people and profit are inextricably intertwined*" (IoD, 2009:11&17). Since CSR primarily involves the simultaneous pursuit of economic prosperity, environmental quality and social equity, companies should not only be evaluated on the economic value added to shareholders, but also on the value, or cost of its operations on the economy, the environment and society (Waddock & Graves, 1997:303). Companies should therefore reconcile their economic goals with the divergent interests of society as a whole (Bonn & Fisher, 2005:730).

Like previous iterations, King III is a principles-based voluntary code of conduct. King III subscribes to an 'apply or explain' rather than a 'comply or else' approach. Adopting companies are required to apply the King III principles, or explain why it has not. Despite its voluntary nature, JSE regulation 8.63(a) requires all JSE-listed companies to apply King III on an 'apply or explain' basis. King III has therefore become a *de facto* regulation for all JSE-listed companies.

3.3 Corporate social responsibility

The combined pressures of anthropogenic climate change, an exploding global population and the present global economic recession, require companies to not only improve their financial performance and operational efficiency, but also to incorporate broader CSR issues into their business strategy (Galbreath, 2006:183; Kirk, 2008; Manwaring & Spencer, 2009). Global concerns are growing about what companies should do to ensure that future generations are not burdened with the residual fallout of business practices that harms society. Mankind are only "*transient caretakers*" of the planet, with a duty to make the world a better place for subsequent generations (King, 2008). CSR may simply be a business opportunity, arguing that opportunities for new products and services emerge when companies define their environmental and social strategies (Hart, 1997). CSR may simply be an extension of the conventional *raison d'être* of profit maximisation (Reuvid, 2007:355).

Responding to increasing pressure for greater transparency and in order to preserve corporate reputations (ICAEW, 2004:4), many already successful companies are critically re-examining their corporate values and changing their operating paradigm from 'exploiting' to 'sustainably utilising' resources. Despite appearing semantic, it illustrates a shift in philosophical corporate morality and accountability. It may accordingly be argued that successful companies today do not only accept the present crises of climate change, food and water shortages, volatile energy prices, and economic and ecosystem collapses, but 'rigorously exploit' it instead (Berliant, 2009).

3.4 Corporate social responsibility assurance

Assurance attempts to strengthen corporate accountability by reinforcing stakeholder trust and confidence in corporate reporting (Chow, 1982; ICAEW, 2005:5–6). The International Framework for Assurance Engagements [IFAE] defines an assurance engagement as "*an engagement in which a practitioner expresses an opinion designed to enhance the degree of confidence of the intended users other than the responsible party about the outcome of the evaluation or measurement of a subject matter against criteria*" (SAICA, 2008:Frame 3).

Verifying CSR disclosures promotes balanced corporate reporting while providing users with confidence about the completeness, validity, relevance and integrity of CSR disclosures. CSR assurance strategically bridges the credibility gap characterising CSR reporting (Manetti & Becatti, 2009), by reassuring stakeholders that the CSR disclosures are credible and may be relied upon (FEE, 2002; Manetti & Toccafondi, 2011). A CSR assurance engagement should cover the entire process through which social and environmental impacts companies are measured and reported on (Owen, Swift, Humphrey & Bowerman, 2000:85). However, assurance involves more than statement commenting on reported CSR performance, it should also refer to the underlying processes and the systems generating the disclosed information (Al-Hamadeen, 2007:17).

CSR verification practices are rapidly evolving, with reporting companies relying on assurance to improve the credibility and transparency of their CSR disclosures (Huggins, Green & Simnett, 2011:A3–A4; Kolk & Perego, 2010:183). Assurance attempts to bridge the credibility gap resulting from a lack of confidence in both the reported CSR data and the sincerity of reporting companies (Owen & O'Dwyer, 2004:1). A CSR assurance report is the published opinion resulting from a CSR assurance engagement whereby an assuror examined the CSR report veracity and completeness (CorporateRegister, 2008:6–8). The CSR assurance report should provide an objective overview of the assurance engagement scope, process, limitations, results and opinions which is usually published by the reporting company. The nature of CSR assurance practices vary greatly according to several factors, including the company's reporting experience, the size and scale of operations, the available budget and the stakeholder requirements (CorporateRegister, 2008:5–6).

Assurance may be either substantiated or unsubstantiated (Al-Hamadeen, 2007:22).

Substantiated assurance requires a qualified and objective assuror to rigorously, systematically and formally evaluate and verify the subject matter and report on the results. By contrast, in unsubstantiated assurance the subject matter is subjectively evaluated based on the assuror's expertise, instead of a detailed evaluation of the underlying performance measurement and management processes.

Report credibility is enhanced when users can identify the assuror and the assurance engagement type (Wiertz, 2009:18). However, there is no consensus about which entities should provide CSR assurance, the assuror's competencies, or the CSR assurance approach that should be adopted (Al-Hamadeen, 2007:133). The primary providers of CSR assurance may traditionally be divided into certification bodies, specialist consultancies and the Big 4 audit firms (Ackers, 2009:12; CorporateRegister, 2008:28; Manetti & Becatti, 2009:293; O'Dwyer, Owen & Unerman, 2011:32). Despite being associated with their conventional financial statement attestation role, led by the Big 4 audit firms, the audit profession are diversifying their professional services to include CSR assurance. To differentiate between CSR assurances provided by the audit profession from that of other assurors, in this paper auditor assurors refer to the former and non-auditor assurors to the latter. Non-auditor assurors may appear to provide higher assurance levels, adding value to the CSR reporting process, despite focusing on improved CSR strategies and processes, which potentially impairs independence (O'Dwyer & Owen, 2005:71–72). However, a significant shortcoming of many of these non-auditor assuror reviews, is that the engagement 'evidence' may simply be management's explanations often supported by perfunctory walk-through factory inspections, potentially depicting a false reality (Jenkins, 2001:15–16).

By providing information about the assurance engagement standards, CSR assurors improve report comparability and enhance user understanding about the nature and extent of the assurance provided (Al-Hamadeen, 2007:32,148). However, even when the standards are disclosed, the ability of users to meaningfully interpret, analyse and compare CSR assurance reports is impaired by its inconsistent application, exacerbated by the use of different assurance standards. While there are several assurance standards dealing with CSR, none are universally accepted (Ackers, 2008; ICAEW, 2008:12). Some assurors use professional engagement standards developed through rigorous, independent and transparent processes, while others tend to rely on more subjective professional judgement (IFAC, 2006:7). Establishing a uniform platform and common terminology, improves comparability and reduces report user confusion (Al-Hamadeen, 2008:32; Owen *et al.*, 2000:91–92). However, CSR assurors may combine different heterogeneous operating instruments, even mixing conflicting guidelines and standards, increasing user confusion (Manetti & Toccafondi, 2011). A typical assurance report should indicate the assurance engagement objectives and scope, the respective responsibilities of management and the assuror, the assurance methodology, the stakeholder engagement process, and an opinion on the completeness and fairness of CSR disclosures (ICAEW, 2004:90).

4. Analysis and interpretation of empirical results

4.1 Assurance rate

As indicated in Figure 1, 50 (26%) companies provided assurance on their CSR disclosures in 2011/2, compared to 42 (22%) in 2010/1 and 18 (9%) in 2007/8. CSR assurance has therefore grown by 133% from 2007/8 (since King III) reflecting cumulative growth of 178% over the study period.

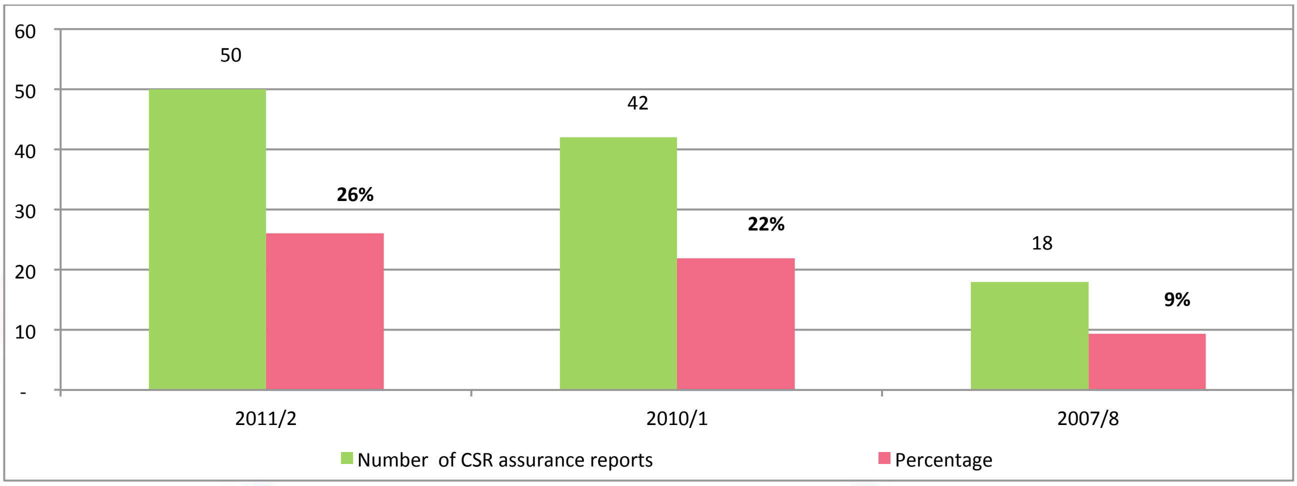

Figure 1 – South African CSR assurance provision across the study period

Figure 2 depicts the extent of CSR assurance as a percentage of the total JSE market capitalisation and the selected companies' market capitalisation. In 2011/2, companies providing CSR assurance represented 69% of the total JSE market capitalisation and 70% of the top 200 companies' market capitalisation of the at 30th April 2012. Despite only 26% of the top 200 JSE-listed companies providing CSR assurance in 2011/2, it represented 69% of the total JSE market capitalisation (61% in 2010/1 and 43% in 2007/8).

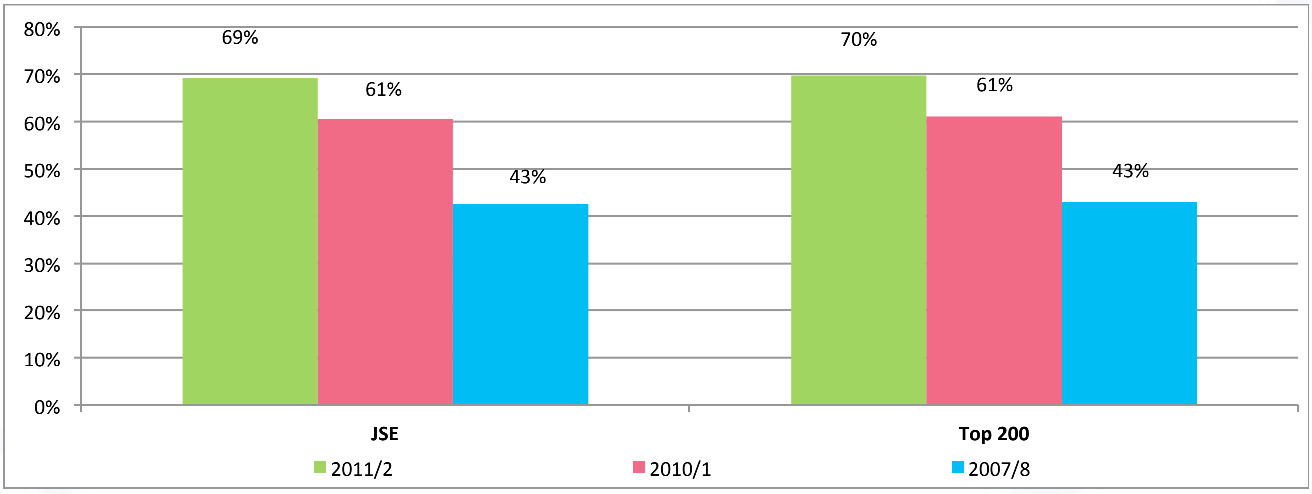

Figure 2 – CSR assurance rates in terms of market capitalisation

Confirming the proposition advanced by slack resource theory, Figure 3 graphically illustrates that larger companies provide more CSR assurance than smaller companies. However, as companies more fully implement King III, this CSR assurance distribution appears to be changing.

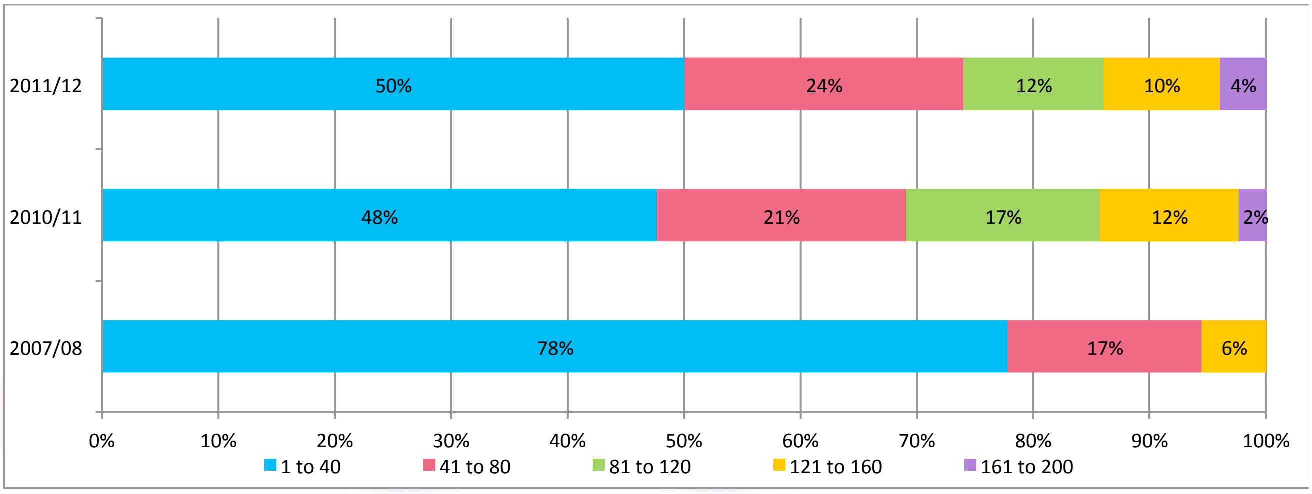

Figure 3 – Distribution of CSR assurance according to company size

Figure 4 reveals that the primary sector providing CSR assurance is the resources sector (providing 38% of CSR assurance reports in 2011/2; 47% in 2010/1 and 56% in 2007/8). In 2001/2, this was followed by the financial services sector with 18% (14% in 2010/1 and 17% in 2007/8); the industrial sector, with 18% (19% in 2010/1 and 11% in 2007/8); the consumer sector with 14% (14% in 2010/1 and 11% in 2007/8); and telecommunications with 10% (5% in 2010/1 and nil in 2007/8). The primary reason for the resources, financial services and industrial sectors being the primary providers of CSR assurance, may be attributed to trying to legitimise business operations and wanting to protect society and the environment from adverse consequences of commercial operations. Companies in these sectors usually operate in highly regulated environments that aim to protect societies' interests, and attempt to preserve their literal and figurative 'licence to operate'.

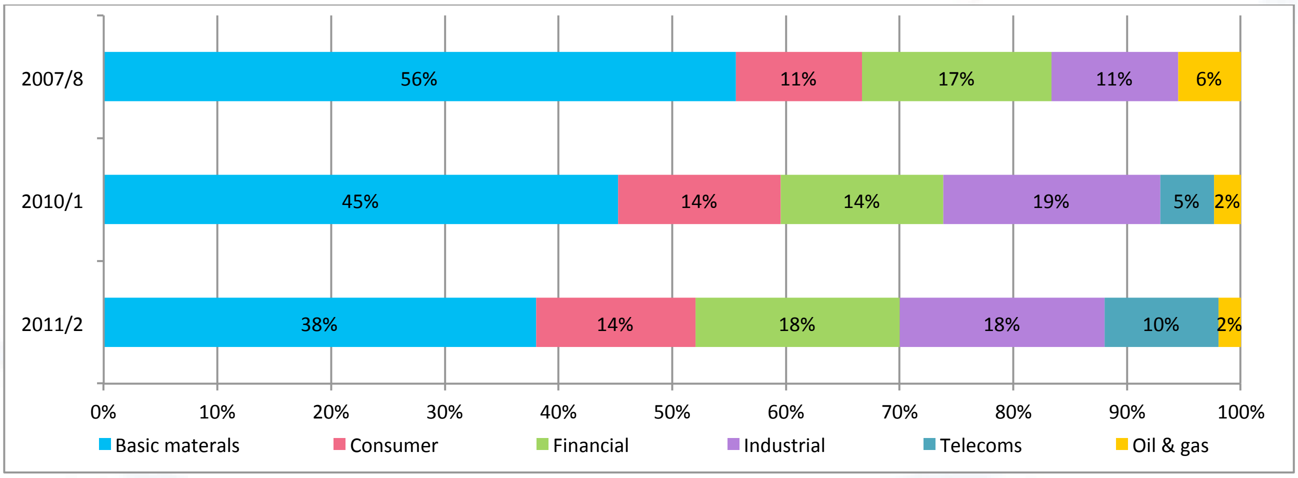

Figure 4 – CSR assurance by JSE industry sector

Despite CSR assurance growth, the number of JSE-listed companies providing CSR assurance remains disappointingly low, especially since CSR assurance became a *de facto* JSE regulatory requirement from 1st March 2010. While annual report narrative indicate that some companies provided CSR assurance but did not publish an assurance report, this often referred to the verification of limited aspects of CSR, including broad-based black economic empowerment [BBBEE], carbon footprints, greenhouse gas [GHG] emissions and occupational health and safety. These assurance engagement results are not usually published, but provided in a separate report to management. Despite King III's 'apply or explain' requirement, several companies did not reveal reasons for not providing CSR assurance in their annual/sustainability reports. Reasons advanced were primarily due to not yet being ready, but were developing their capacity to do so in future; not considering CSR issues as material; and that internal audit reviewing CSR was a more cost effective alternative. As more companies provide CSR assurance, even if only to conform with King III and the JSE regulations, it is expected that disclosing reasons will become unnecessary. Stakeholders tend to trust companies that illustrate their accountability and transparency by more comprehensively applying the King III principles, and are sceptical of those that continually explain why they have not done so.

4.2 Assurance providers

As indicated in Figure 5 – CSR assurance provision by assuror type, collectively auditor assurors remained the primary CSR assurance providers. In 2011/2, Big 4 audit firms issued 31 assurance reports (62%); 29 in 2010/1 (69%); and 14 in 2007/8 (78%). Mid-tier audit firms issued two (4%); two in 2010/1 (5%) and none in 2007/8; and internal audit issued one (2%), one in 2010/1 (3%) and one in 2007/8 (6%). Included in the Big 4 assurance reports, were two jointly assured by more than one Big 4 assuror; and one Big 4 assurance report combined with an expert opinion. Other providers of CSR assurance included – 15 by specialist CSR assurors (30%), ten in 2010/1 (24%) and three in 2007/8 (17%); and one by a certification body (2%) and none in 2010/1 and 2007/8.

Despite internal audit being 'independent' and possibly qualifying as a provider of 'independent CSR assurance', internal audit reports are usually intended for internal use, with their dissemination similarly being confined to internal users. Internal audit is ideally positioned to provide a cost effective and value-adding alternative to external CSR assurance, particularly during the developmental phase while companies develop their CSR capacity as illustrated by comments such as "*this has proved to be valuable in entrenching sustainability throughout the organisation*". This transitional role is aligned to the objective of assisting organisations accomplish their goals by adding value and improving operations through a systematic, disciplined approach to evaluating and improving the effectiveness of risk management, control, and governance processes (IIA, 2013), and an integral part of combined assurance (Coetzee & Lubbe, 2011:30).

Despite the Big 4 audit firms' existing dominance, as other CSR assurors engage in CSR assurance to meet the increasing demand, the extent of this dominance is waning. Since certification bodies were not significant role players in South Africa, it is expected that over time, the South African CSR assurance market will consolidate amongst auditor assurors and specialist CSR assurors. Non-Big 4 assuror growth is expected to slowly erode the present dominance of Big 4 auditor assurors.

When juxtaposing the auditors of financial statements against the CSR assurors for 2011/2, 50% (n=25) of audit firms provided both the financial statement audit reports as well as the CSR assurance report. This suggests that reporting companies may prefer using the same audit firm to assure both financial and non-financial reporting. The interrelated nature of financial and non-financial information implies that efficiencies and economies of scale may arise when the same audit firm is responsible for both financial and non-financial integrated report disclosures.

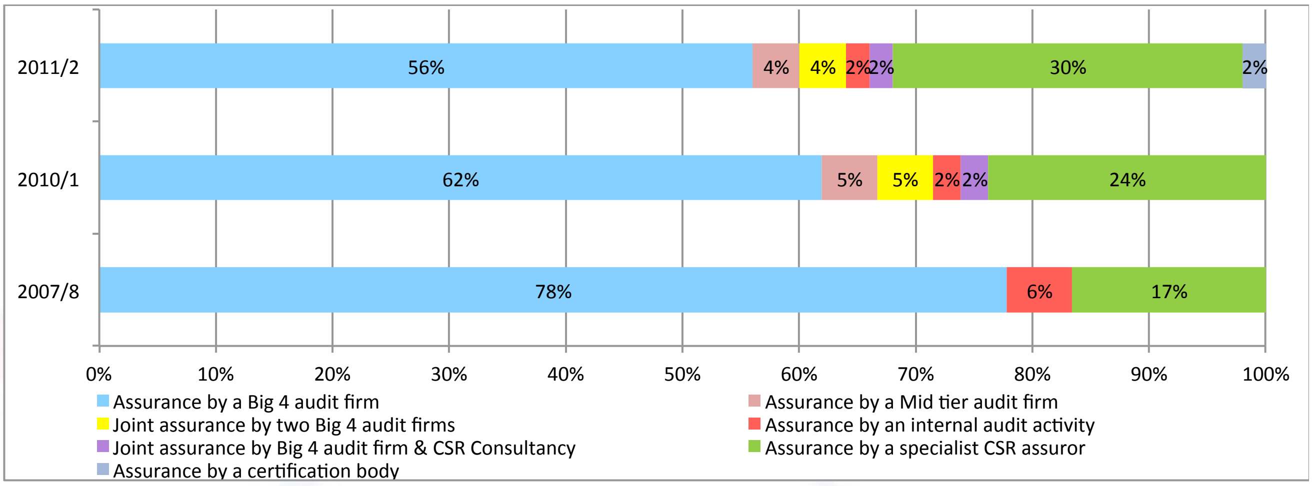

Figure 5 – CSR assurance provision by assuror type

4.3 Assurance standards and frameworks

Figure 6 reveals that the two primary CSR assurance standards used were AA1000AS and ISAE3000. Aligned to the observation that auditor assurors were the primary providers of CSR assurance, ISAE3000 (the mandatory generic 'non-financial' assurance standard for auditor assurors) is the most commonly referenced standard. ISAE3000 does not adequately provide meaningful assurance about the reliability of underlying CSR disclosures.

Apart from KPMG that did not disclose any standard in their Gold Fields CSR assurance report, the remaining auditor assurors all referenced ISAE3000.

In a multi-level Gold Fields assurance engagement, Maplecroft disclosed the assurance standard used, but KPMG did not. Additionally, two assurors referenced ISO14064-3:2006[1] and one ISO19011[2], while several referred to the GRI[3]. Despite not being an assurance standard, the GRI provides reporting companies with the necessary guidelines to implement CSR assurance, allowing compliant companies to add a '+' [plus] to their self-declared GRI status.

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[1] ISO14064-3: 2006 specifies principles and requirements and provides guidance for those conducting or managing the validation and/or verification of greenhouse gas (GHG) assertions.

[2] ISO19011: 2011 provides guidance on auditing management systems, including the principles of auditing, managing an audit programme and conducting management system audits, as well as guidance on the evaluation of competence of individuals involved in the audit process.

[3] GRI – Global Reporting Initiative.

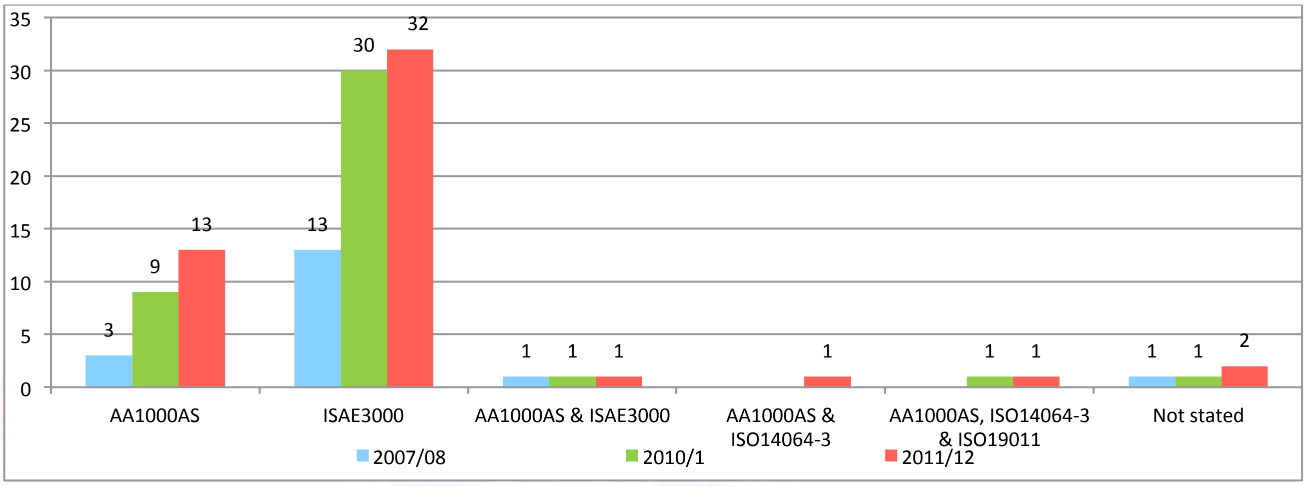

Figure 6 – Assurance standards referenced in CSR assurance reports

Ernst and Young referenced both ISAE3000 and AA1000AS their British American Tobacco CSR assurance report. By comparison, except for ERM that referenced ISAE3000 together with ISO14064-3:2006 and ISO19011 in their Mondi assurance report, the remaining specialist CSR assurors all referenced AA1000AS, with CA Governance (i.r.o. Telkom) also referencing ISO14064-3. Apart from Ernst and Young (i.r.o. British American Tobacco), auditor assurors did not reference AA1000AS, although several specifically referred to AA1000APS[4] and its principles of inclusivity, materiality and responsiveness. As expected, the CSR assurance reports of Standard Bank, ABSA, Nedbank, Arcelor Mittal and Liberty Holdings (all assured by Big 4 audit firms) were assured according to ISAE3000 and not AA1000AS, despite referencing the AA1000APS principles. Other assurors also referred to the GRI G3, AA1000APS, King III, JSE SRI, GHG, BEE and UNGC (reporting) frameworks and guidelines in their CSR assurance reports. In this regard, CSR assurors usually indicated that this provided the criteria against which the assurance engagement was undertaken.

It is proposed that the various CSR assurors should collaborate to develop a comprehensive CSR assurance standard that could be consistently applied by all CSR assurors globally. Introducing a consistent mechanism to improve user understanding and facilitate report comparability, should reduce CSR and CSR assurance report user confusion.

4.4 Assurance opinions

CSR assurance usually refers to a process that leads to an assurance opinion published in an assurance report that accompanies the CSR report (IFAC, 2011:175). The opinion is therefore the most important component of an assurance engagement, as expressed in the assurance report, which should not communicate opinions that are materially different from what the evidence suggests. However, CSR assurance opinions may be influenced by the assurance level pursued, the assurance objective and any limitations placed on the assurance engagement. Where warranted, assurance opinions should provide additional information or produce disclaimers and qualified

[4] AA1000APS – the AccountAbility Principles Standard, provides a set of principles describing how corporate accountability is understood, governed, administered, implemented, evaluated and communicated.

opinions. Examples of adverse opinions include "the following could have been covered in more depth", or "we are not able to obtain sufficient appropriate evidence to draw a conclusion on the accuracy, completeness and validity. Accordingly, we do not express an opinion..."

Report user comparability is complicated by the different assurance levels provided by the two primary CSR assurance standards used, which mean different things and relate to different aspects of the assurance engagement. ISAE3000 compels auditor assurors to consider two types of assurance engagement, namely 'reasonable' and 'limited'. By contrast, AA1000AS requires assurors to indicate the assurance level provided (i.e. high or moderate), although usually providing 'reasonable assurance opinions'. Assurors express their engagement opinion in the positive form for reasonable assurance engagements, while limited assurance engagements produce negatively framed engagement opinions. Reasonable and limited assurance opinions refer to fundamentally different assurance levels, but the actual wording used is so discreet that uninformed users may not notice the difference. Negatively-framed CSR assurance opinions are usually worded as '*nothing has come to our attention causing us to believe that the...'* or '*we are not aware of...'* By comparison, positively-framed CSR assurance opinions are usually worded as '*in our opinion...*' '*is prepared in all material respects, in accordance with...*' or '*are fairly stated in all material respects'*. This nuanced differentiation creates confusion that undermines the assurance purpose.

At first reading, the difference between negatively-framed and positively-framed assurance opinions appears semantic. In a positively-framed assurance opinion, the assuror confirms that the evidence suggests that the disclosed information is reliable. By contrast, in negatively-framed assurance opinions, the practitioner indicates that they cannot see any reason why the results are not as expected. The implied constraints of negatively-framed limited assurance opinions impair the underlying objective of CSR assurance. However, a prominent non-auditor assuror described negatively-framed assurance as like *taking a lawn chair and sitting in front of the company for two weeks and if nobody comes forward to tell you that there is something wrong with the reported information then 'nothing has come to your attention'. They don't give you the information. So you don't look at the right data.*

A deeper scrutiny of the wording used in assurance opinions suggests that auditor assurors are usually confined to reporting on disclosed information, which may be limited by the engagement scope and worded as *the selected sustainability information* or as *presented in the report.* By comparison, non-auditor assuror opinions usually more comprehensively refer to broader CSR performance and/or reporting frameworks. For example, IRAS assurance opinions tend to conclude that the "report provides a comprehensive and balanced account of environmental, safety and social performance for the period under review". When considering the nature of the opinion provided, while some assurance reports acknowledged isolated errors, or identified areas requiring improvement, no opinions were disclaimed or qualified.

Figure 7 reveals that all auditor assurors, ERM and internal audit collectively issued 25 (50%) 2011/2 negatively-framed limited CSR assurance opinions (2010/1: 24 – 57% and 2007/8: eight – 44%); 12 (24%) assurors provide positively-framed reasonable assurance opinions (2010/1: ten – 24% and 2007/9: seven – 24%); and 13

(26%) provide a combination of limited assurance on some aspects of the CSR report and reasonable assurance on others (2010/1: eight – 19% and 2007/8: three – 17%). CA Governance (i.r.o. Telkom) provided reasonable assurance on GHG emissions, but instead of applying either high or moderate levels of assurance, introduced a nine level assurance scale that exceeded the AA1000AS requirements. While Maplecroft (i.r.o. Gold Fields) did not indicate the assurance level, KPMG the co-assuror provided reasonable assurance, despite not disclosing any assurance standard. ERM (i.r.o. Sasol) provided high levels of assurance on some aspects of their CSR report and moderate assurance levels on others.

While CSR assurance is intended to provide stakeholders with confidence about the veracity of the underlying CSR disclosures, the extent of comprehension depends on the technical knowledge and skills of report users. Despite the evidence suggesting that reasonable assurance levels are stronger than limited levels, the tendency for reporting companies to use auditor assurors (usually providing limited assurance) may be attributed to reporting companies not fully appreciating the difference between the two, or the perception that this deficiency may be compensated by the perceived rigour of assurance provided by auditor assurors. Therefore, despite the assurance level provided, the quality and extent of assurance may not necessarily depend on whether reasonable or limited assurance levels was provided, but on the reporting company's reason for providing CSR assurance, the CSR assurance engagement scope, or the perceived assurance process rigour.

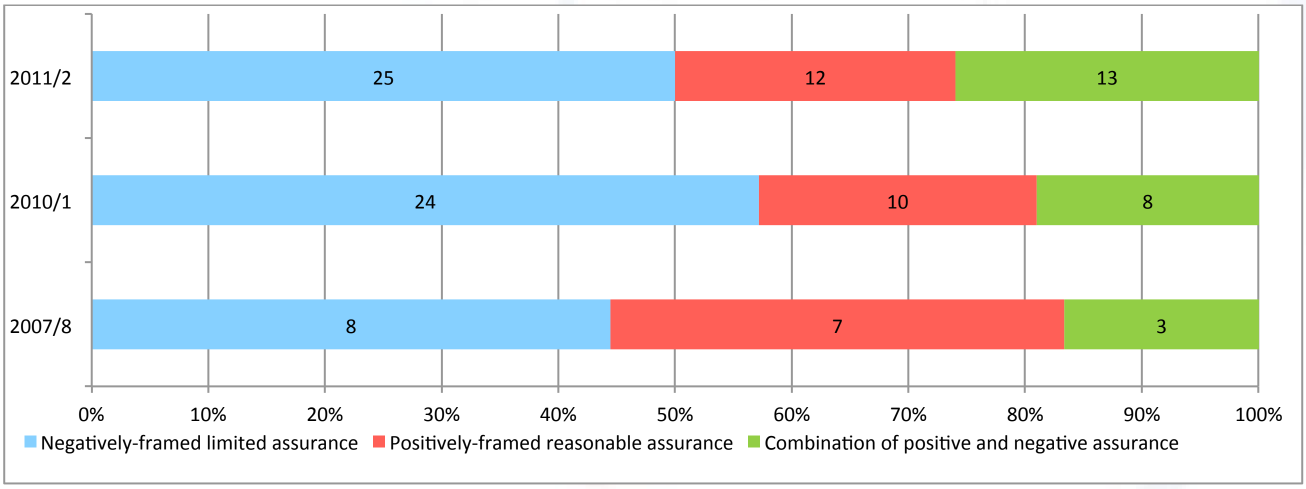

Figure 7 – Assurance opinions provided in CSR assurance reports

4.5 Discussion

Despite the relatively slow uptake, CSR assurance has steadily grown, accelerating following King III implementation. This upward trend is predicted to accelerate as reporting company CSR practices mature and they develop their capacity to more comprehensively apply the King III principles. The propensity for larger companies to provide CSR assurance is illustrated by the 2011/2 CSR assurance rate only representing 26% of reporting companies but 70% of the total JSE market capitalisation.

Unlike the standardised format of financial statement audit reports that all auditors apply, CSR assurance report structure vary significantly, even by the same assuror.

Moreover, not only did the format of CSR assurance reports differ, the nuanced wording used in CSR reports may produce different interpretations of the same phenomena, as illustrated by the discussion on limited and reasonable assurance, or the nature and extent of the assurance work performed. While some assurance engagements involve verifying CSR-related disclosures, others only involve interviews or perfunctory reviews of processes and/or documentation. Moreover, the nature of the company's operations and/or industry sector implies that different CSR-related issues could be considered material. The report user may accordingly require in-depth knowledge about the company and/or industry to appreciate the implications of the CSR disclosures and the CSR assurance report. Despite acknowledging that CSR assurors usually provide management with a separate report containing the detailed results of the assurance engagement together with recommendations for improvement, these reports are confidentially produced and not publicly available. Users may therefore not comprehend the CSR aspects that had been assured, but more importantly by omission, which areas had not.

Reporting companies may select an auditor assuror instead of a non-auditor assuror because of a combination of the expected public relations [PR] benefit, the perception that the assuror could contribute to improving the quality of their CSR practices, the audit profession's strong brand (the Big 4 audit firms in particular), as well as their established relationships with the audit profession. This proposition is illustrated by the comment in the 2012 Capitec Bank Integrated Report that "the <u>prestigious international firm</u>, PricewaterhouseCoopers Inc, acts as external auditors" [emphasis added]. These positive perceptions about auditor assurors may be further enhanced by the rigorous assurance methodology of the global audit profession, strengthened by the mandatory requirement for auditors to continually participate in professional development/education [CPD/CPE] (which is not a mandatory requirement for largely unregulated non-auditor assurors). The decision by Merafe Resources to change their assurors from IRAS (in 2011), to KPMG (in 2012), or conversely by Royal Bafokeng Platinum to change their assurors from PwC (in 2011) to IRAS (in 2012) or Consolidated Infrastructure Group's decision to change assurors from PKF (in 2011) to IRAS (in 2012), may have been influenced by a combination of these factors. While choosing a CSR assuror may be determined by the reporting company specific circumstances, and what it expects to achieve through CSR assurance, it is acknowledged that as circumstances change over time, the factors used by companies when selecting an assuror, may similarly change.

Specialist CSR assurors (especially CA-Governance and to a lesser extent IRAS), appear to issue comprehensive and unambiguous CSR assurance reports. By contrast, auditor assurors tend to issue rather ambiguous and generic CSR assurance reports, without providing any detailed information that may be required for decision-making. The format of auditor assuror provided CSR assurance reports are similar to conventional financial statement audit reports that reflect compliant or non-compliant performance within predetermined parameters, but that does not provide the necessary underlying detail.

5 Conclusion

While it is clear that King III was a catalyst for accelerating CSR assurance provision, the present CSR assurance rate remains disappointing low. However, CSR assurance will continue to grow as companies develop their capacity to improve the extent to which the King III principles are applied. Collectively, auditor assurors continued to provide the majority of CSR assurance reports. But the increase in CSR assurance demand and the expectation that it will continue to grow provides opportunities for new CSR assurors to consider providing CSR assurance, or for existing assurors to increase their market penetration.

Even though auditor assurors may appear to provide lower assurance levels than non-auditor assurors, the value of the assurance provided by auditor assurors may nevertheless be perceived as being higher than assurance provided by non-auditor assurors, primarily due to the strength of the audit profession's brand and the perception of a more rigorous assurance process. The perceived CSR assurance value may therefore not necessarily be confined to the extent of CSR assurance provided, the assurance standards utilised, or the competencies of the assuror; but may be influenced by other factors such as the underlying reason for providing CSR assurance, the perceived value of associating with a particular assuror, the reputation of the assuror, the cost and duration of the assurance engagement, the ability of the assuror to assist the reporting company to improve the quality its CSR governance and reporting practices and the expected interruption factor caused by yet another 'audit'.

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Working Adults Learning Model for Developing Country

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Abstract

This article presents the concept of designing Working Adults Learning (WAL) model for Bachelor degree in Industrial Technology; B-Tech under cooperation between King Mongkut's University of Technology Thonburi (KMUTT) and SNC Former public company. It is called "KMUTT-SNC B-Tech. Model", which is a tailor-made curriculum that focuses on developing core competencies to produce technologist to satisfy firm's demand. Success of designing WAL curriculum is considered by the need for knowledge, skill, and emotion.

Introduction

Global trend in population structure is changing to Aging Society. World population has a rising trend to increase from 6,070.6 million people in 2000 to 7,851.4 million people in the next 25 years which is 2025. Proportion of senior citizens (age 60 and above) will increase from 10.0 percent in 2000 to 15 percent in 2025 while proportion of children(age 0-14) fell from 30.1 percent in 2000 to 24.2 in 2025. This shows that population structure is changing from children to senior citizens or aging society in the future (National statistical office 2013). As a result, in the new era where society and economy have fundamental on knowledge, successful organizations are equipped with personals who are knowledgeable, intellectual and capable of keeping up with changing global circumstances. In businesses which compete in service and in public sectors in which people's satisfaction is one key indicator, personals who understand the job and have people skill are keys to a bright future and the survival of organizations. Continuous and consistent self-development would increase their potential and productivity for organizations. The curriculum for the students categorized as "adults" is more sophisticated than that for students who are of school age. As adults, students are those who are already competent to some degree. Moreover, curriculum should be customized to varieties of adult students because curriculum is considered one of the variables that will motivate students to actively participate in the teaching process. Knowles (1990) have hypothesized about the nature of adult learning is that when people grow up, adults tend to prefer Self-direction. Moreover, experience is a valuable learning resource. Therefore, active participation should be used as a means of training for adults with focus on the realization of real life stories. Specifically, adults want to acquire the skills and knowledge needed to increase their career-related potential capabilities and want to use those skills and knowledge immediately. Arts and sciences are considered to be an important tool to help in the study of adult (Fidishun 2000, Zmeyov 1998). [3,4]. Knowles (1980) has called this adult education andragogy which includes the need to know, Learner self-concept, Role of learners' experience, Readiness to learn, and Orientation to learning. In addition, it was also found that the learning process of adults are primarily based upon six pillars which are Adults are internally motivated and. self-directed, Adults bring life experiences and knowledge to learning experiences, Adults are goal oriented, Adults are relevancy oriented, Adults are practical and Adult learners like to be respected (QOTFC 2005). However, the reports of the past research on working adults learning show that it is often subject to a lot of problems such as organization supports, financial problem, and time constrain. These issues are the main factor that will make working adults confront to problems in learning and finally drop out (Darkenwald and Merriam 1982, Johnstone and Rivera 1965). It was also found that the factors of family issue, lack of organization support, changing job, and work load would cause problems in school and dropout as well (Willging and Johnson 2004). Therefore, designing curriculum for working adults are considered to be a very delicate process.

King Mongkut's University of Technology Thonburi; KMUTT is giving much importance to working adults learning in Thailand, especially working adults learning in industrial factories such as ChEPS (The Chemical Engineering Practice School) (Hong-ming Ku and SaranyaThonglek 2011) , a study that focused on practicality , while developing skills as well as knowledge. Instruction would focus on work-Integrated Learning or WiL by selecting suitable styles of teaching which include EBL (Experience-Based Learning), Constructivism, PjBL (Project-Based Learning), Problem-Based Learning, RBL (Research-Based Learning) etc. This occurred in graduated degree level (as shown in Figure 1). This was collaboration mainly with petrochemical industry with financial support. WiL model of ChEPS consists of practical training via practice schools,. Internships, Work placements, Cooperative education, Industry-based learning, Community-based learning, and Student group projects. There were also instructions with practice-based learning (PBL), which are called "learning by doing"

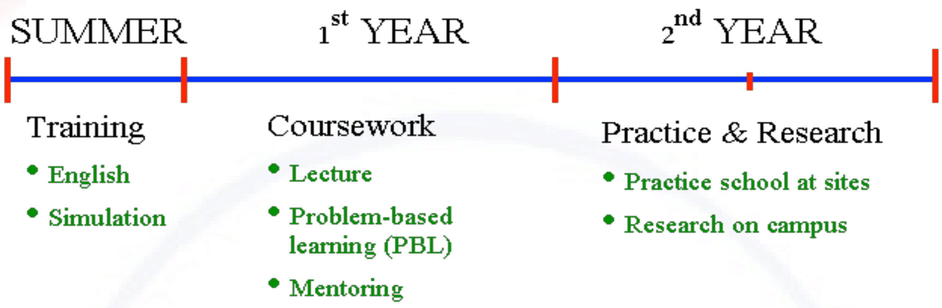

Figure 1.The ChEPS curriculum (Hong-ming Ku and SaranyaThonglek 2011)

2. Background

KMUTT-SNC B-Tech. Model is a model of cooperation between KMUTT and SNC. KMUTT assigned Faculty of Industrial Education and Technology; FIET-KMUTT to operate the project. The purpose of this cooperation is to enhance the ability of personnel in the industrial work. Because capability development in undergraduate degree level often face problems in terms of funding for education in mass level especially with population in the Northeast. Given that they are at work, education opportunity will be reduced severely. As a result, the SNC has given internship opportunity to students in high vocational certificate level studying Metallurgical, Mechanic machine, Electrical, Automotive machine in vocational institutions in the northeastern part of Thailand which include Mahasarakam vocational college, Roi-ed vocational college and Kalasin vocational college. After the program, SNC would hire them to work in the company considering study and internship results. . With the desire to enhance knowledge and opportunities for students in the mechanical field, a collaborative project between the SNC KMUTT was created to leverage technical knowledge of mechanical staffs using the Bachelor degree in Industrial Technology; B-Tech with a focus on practical technologist. Because B-Tech course is a 4-year multidisciplinary course in Bachelor degree level, the last year will be learning in WiL style in industrial factories.

The philosophy of the course focuses on producing graduates who are advanced technologist with intellectual skills and practicality. However, KMUTT-SNC B-Tech course will recruit students in high vocational certificate level by transferring credit and continue on a 2-year or 6-semaster basis. This project began in 2012 as shown in figure 2. It is shown that participating students will have to prepare for mathematic and language during summer prior to the opening of the first semester of the course. Then, when in the first year, instruction will be according to the designed curriculum. Subjects about theory and practical operations require usage of Lab at FIET-KMUTT while the course in PjBL and PBL will be taken at SNC with instructors from FIET-

KMUTT to allow students to experience real-life practice. In the first semester of the second year there will be a theory course and the preparation of a research project.

What students are specially considered is the experience of working for a year in which students are able to transfer the work experience into nine credits , but students are required to prepare a portfolio that can be the valued to 9 credits which has to go through consideration of the project committee. This transfer includes transferring experience in WiL which enables students to drop one WiL subject that worth 9 credits. Before the study in Semester 2 of Year 2, students are required to test their knowledge in the Core course. They are required to score over 80 percent to have the right to study in the second semester of the second year. The Semester 2 of Year 2 is a course to study WiL at SNC, which is to study in the real location and environment. It can be called "On the job learning or On the job training". In this semester 2 of year 2, students will learn two subjects which are WiL and research project. Students have to do 2 research projects, which are Co-oP Project in course WiL and B. -Tech. Project in research Project subject. Co-oP project is to conduct research in the field that students have worked on which involves real-life problems and students conduct research to find solutions. Students will conduct this research alone.

B-Tech. Project is a graduation project that involves bigger problems than the Co-oP project, but it is also problems in students work or practice. Two to three people in each team to work in multidisciplinary way that means to work across disciplines to achieve maximum benefit to the SNC. To finish WiL subject and Research project, students have to present the work to project committee for evaluation before graduating in Semester 2 of Year 2. In the last semester, students will study the last 3 subjects. Most of the courses are about management to prepare students before graduation to work in SNC or other industries. Students graduating in Semester 2 of Year 2 are required to take the Exit examination and must score at least 80 percent from the full marks to be qualified a Bachelor degree in Industrial Technology

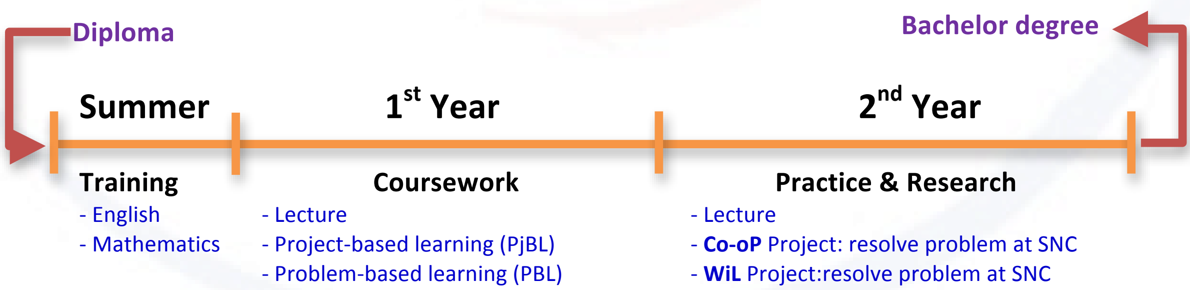

Figure 2.The KMUTT-SNC B-Tech. Modelcurriculum

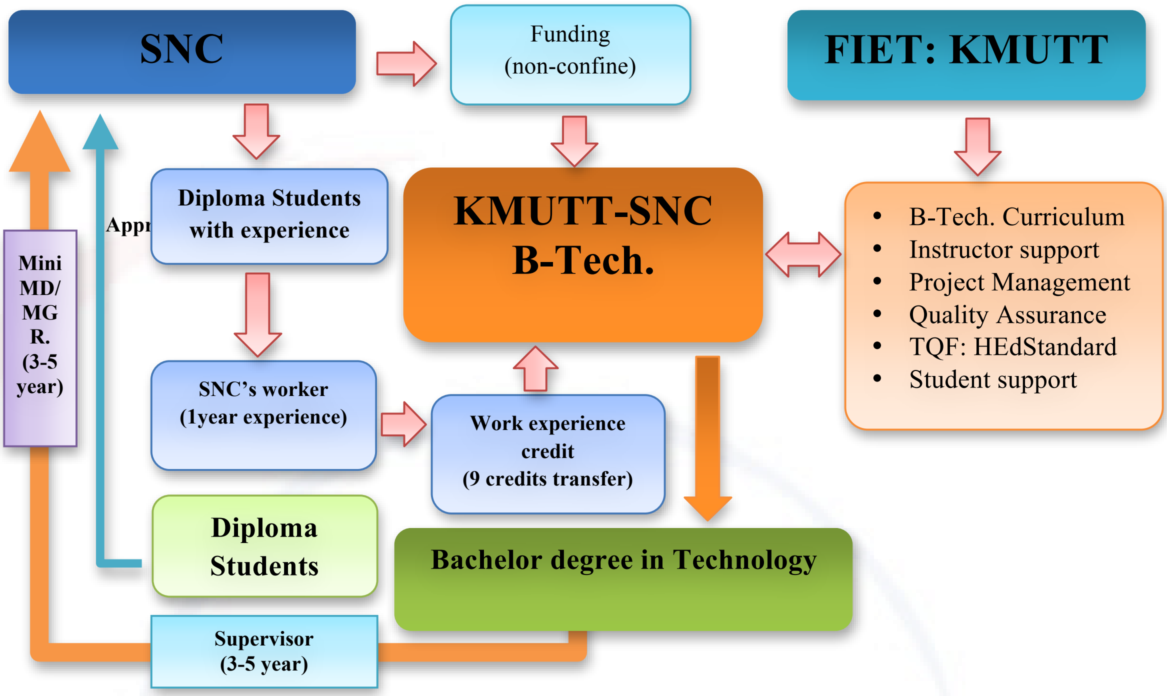

Figure 3.Schematic of KMUTT-SNC B-Tech. Model

3. KMUTT-SNC B-Tech. Model

The most important part of cooperation projects of KMUTT-SNC is to gove opportunity to students in high vocational certificate students especially in their career path and progress. Selection of students in academic institutions is done in the north eastern region of Thailand due to its impairment in the income of the population. Therefore, students who completed high vocational certificate will have little opportunity to have further education or to progress in higher level. The importance of this model is that students who interns at SNC for six months will be hired for one year and were then considered to join the program based on their study and work performances with financial support from SNC without any condition. After completing the program, students do not have to pay back SNC. This created a new dimension for industrial company who really want to support human resource development in the industry.

The implementation of KMUTT-SNC project cooperation is shown in Figure 3. SNC will prepare students and provide funding. Most importantly, progressing career path for students who graduate from the program is prepared. As shown in figure 3, career path of students who completed the program is very clear up to the manager level (MGR.) of each business unit of SNC. Literally, the project is planned to build on the success of the students. In the meantime, FIET-KMUTT prepares curriculum, manage courses, instructors, quality assurance according to Thailand Qualifications Framework for Higher Education; TQF: HEd as well as facilities such as dormitories for students, library information systems, etc.

4. Competencies analysis

Competencies analysis for KMUTT-SNC B-Tech in WAL is an analysis that relies on the basis of the need for knowledge, skills and emotion. Overall, the model primary focuses on fundamental of industry needs so importance is put on practice .Creation of WAL model depended on the needs of the SNC appended to the structure of the course and the level of knowledge in vocational courses that students have learned. Then everything was analyzed for the course to correspond to both SNC and KMUTT as a "Tailor made curriculum". Courses offered in cooperation program will consist of three branches 3 branch which are Mechanical Technology, Electrical Technology, and Production Technology. Detailed analysis of this model presented in this paper was provided for only Production Technology because the three braches share the same core competencies.

Competency analysis can be done in 4 tiers mainly considering the needs of SNC. It was then adjusted to match B-Tech course. Because undergraduate programs in Thailand must be under TQF: HEd standards which is very important in the WAL. For Competency analysis of KMUTT-SNC B-Tech Model in the first phase, it will be analyzed by 4 Tiers in the order of competencies from Tier 1 to Tier 4 (as shown in figure 4), which are determined by two conditions is competency analysis which are Soft skill and Hard skill with the details below.

1. **Tier 1 - Personal Effectiveness**
   It is the fundamental of student development composition. Analysis in the first stage will be analyzed with respect to Soft skill and emotion, which may be compared with the Cognitive domain and Affective domain of Bloom's taxonomy (Bloom 1956, Anderson 2000). Because in this stage is preparation in the individual level. They have to be adjusted to balance because students who get into the program are diverse and vary widely. Therefore, to achieve the highest achievement, balance adjustment is needed. Competencies in tier 1 are identified in all nine components of Interpersonal Skill, Integrity, Professionalism, Reputation, Motivation, Dependability & Reliability, Self-Development, Flexibility & Adaptability, and Ability to learn. Students in all three branches will go through the same adjustment.

2. **Tier 2 – General Competencies**
   The stage of development of the Soft and Hard skill together will focus on the development of mathematics, language, thinking, and management skill. Because at this stage is a preparation to enter the education system in the course of B-Tech, it is important to be prepared in the Tier 2 because students are students who have completed the Diploma with difference in theory graduating from different institutions. Tier 2 will include eight elements including Mathematics, Writing, Specking, Listening, Information Technology, Critical & Analytical Thinking, Management, General, and General Economics. Writing, Speaking, and Listening are in English.

3. **Tier 3 – Core Competencies**

In this stage, competencies of each branch are separated. In this research, only Production Technology is highlighted. In this stage, hard skills are developed considering knowledge and skill comparable to Bloom's taxonomy's Cognitive domain and psychomotor domain (Bloom 1956, Anderson 2000). It is a very important stage because in this stage SNC's needs are analyzed and incorporated with curriculum competency analysis. In Production Technology, there are five components which are Quality control, Engineering Statistic, Industrial Work Study, Industrial Metallurgy, and Manufacturing System. These are competencies that focus on problem solving in real situation and in theory.

4. **Tier 4 – SNC Specific Competencies** This is the highest level of competency. This tier is a requirement from SNC to correspond to prepared Career path which can be called "Occupation-Specific for SNC competencies" because the four components which are Welding Technology, Production Planning and Control, Logistic & supply chain, and Maintenance Management are important for Production Technology branch in SNC. As a result, specifying this high level competencies gather all Soft and Hard Skill in this Tier 4. If we consider all four competencies, all the fundamental competencies are required to develop to tier 4.

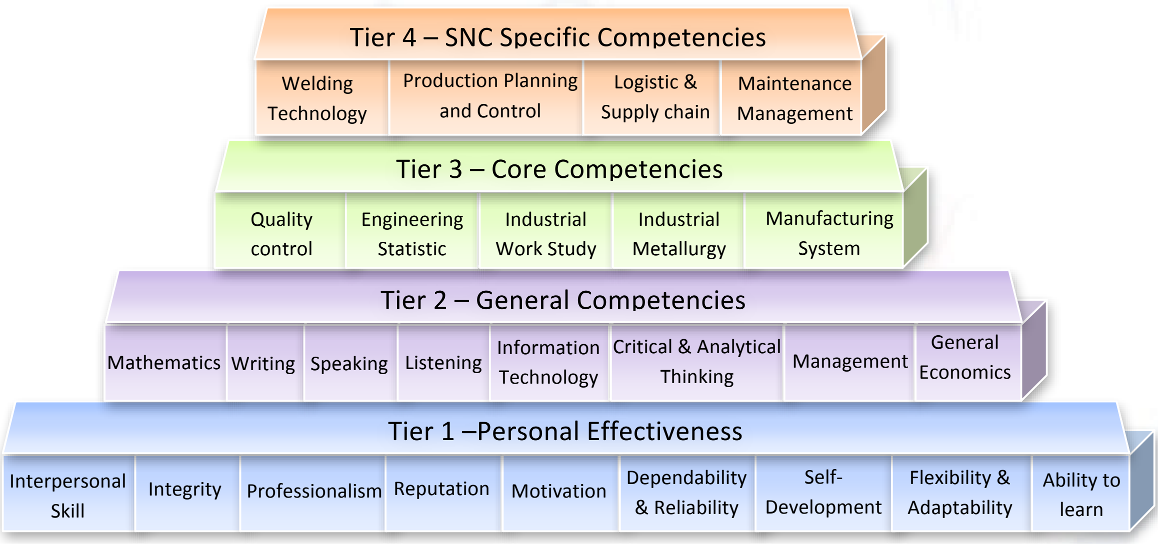

Figure 4.KMUTT-SNC B-Tech. ModelGraphic: Production Technology field

5. Conclusion

Development of KMUTT-SNC B-Tech. Model for Working Adults Learning proposed a model of education for developing countries, especially ones that experience problems with financing education. SNC, a private company, has approached to help in the development of the educational system of Adults. It is considered a good example of the philosophy and goals to develop human resources to enter into the industries without requiring anything in return. Overall, the benefit of this program falls on students or working population. The model presented here is a part of Production Technology field that belongs to B-Tech. To conclude, in the development of the WAL instruction model, both Soft and Hard skills must be developed with financial support. Competencies include four components which are Tier 1 –Personal Effectiveness, Tier 2 – General Competencies, Tier 3 – Core Competencies, and Tier 4 – SNC Specific Competencies.

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A Comparison of Chinese State-Owned Enterprise Firm's Boards and Private Firm's Boards

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Abstract

Using 3,019 listed firms in China divided into two subsamples, we compare the characteristics of corporate governance between private firms and State Owned Enterprise (SOE) firms after they have gone public on the Chinese stock markets. We examine the differences in board structure between these two types of firms. Results show that private firms and SOE firms have different governance characteristics. SOE firms have larger boards, meet less often, have a smaller proportion of independent directors on the board, have lower managerial ownership, have older directors, and have directors with a higher educational level of directors than do private firms. SOE firms also appoint more independent directors from academia, and their Chairpersons are less likely to be the CEOs. For private firms, hiring independent directors from academia hurts the firm's financial performance while the appointment of independent directors from academia does not harm the SOE firm's performance. Meanwhile, hiring independent directors who have accounting skills is beneficial to an SOE firm's performance whereas for a private firm, its financial performance is unaffected even when it hires independent directors with accounting skills. Our analysis indicates that in China, although private firms and SOE firms have theoretically become public firms, the SOE firms are relatively superior to the private firms in corporate governance efficiency, especially in appointing high-caliber independent directors.

Keywords: corporate governance, board of directors, firm performance, Chinese listed firms, private firms, state-owned enterprises, IPOs.

JEL classifications: G30, G34, G38.

1. Introduction

The Chinese economy has been experiencing a period of unparalleled growth in the past three decades. However, the corporate governance systems for Chinese companies are still developing. Establishing an efficient corporate governance system for Chinese firms is a pressing issue as part of the government's efforts to develop financial markets. The major challenge to corporate governance reform is that China began its corporate governance reform efforts before the elements of a well-functioning financial market were in place.

To explore the corporate governance systems for Chinese firms, we need to understand that the listed companies on the Chinese stock markets stemmed from two original business forms: (1) private firms, which are essentially the same as those in developed countries, and (2) state-owned enterprises (SOEs), which are fully owned by the Chinese government and usually run by government-appointed executives. Since SOE firms were the only business form in China until the early 1980s they are usually larger and have more resources than do private firms. Authentic private firms were allowed to be established in China only after the 1980s, and these private firms are more likely small in size and constrained by a vast array of regulations. Although many of both types of the firms have gone public, their differences remain substantial, in terms of firm size, market share, lines of business, competitiveness, and most importantly the efficiency of their corporate governance.

The SOE structure has resulted in complex governance issues with respect to board structure and the independence of the board of directors from the management team. China basically adopts a quasi-two-tier board structure comprised of a board of directors and a supervisory board. Supervisory directors are not involved in the selection of directors and managers and, therefore do not have the authority to supervise them effectively. In addition, the state and majority shareholders (which are usually government agencies, holding more than half of the total outstanding shares of listed firms) still play a dominant role in the appointment of independent directors, the Chairperson, the CEO, and senior executives. Business leaders as well as academics have voiced their concerns that there should be a mechanism for allowing the appointment of true independent directors to represent or at least communicate with minority shareholders.

In China, minority shareholders are a highly fragmented group of individuals since institutional investors do not play a material role. Retail investors in China, as in many markets around the world, often lack investment knowledge and awareness of shareholder rights. It is relatively difficult for individual investors in China to enforce any legal rights against a listed company for negligence or fraud. Lacking financial resources and understanding of the investment landscape, these small investors are not able to take any action when their rights are infringed by the company or major

shareholders. Given these circumstances, the importance of independent directors may be magnified. Besides, executive compensation generally consists of fixed salary plus cash bonuses.
Prior research has found corporate governance in China to have problems (Gibson, 2003，La Porta, Lopez-de-Silanes, Shleifer, and Vishny, 1998). Therefore, we propose to examine two governance issues in Chinese firms. First, due to the historical differences between SOE firms and private firms before they went public, we examine the differences in corporate governance between SOE and private firms after they go public. Second, we examine the board characteristics that determine the financial performance of listed Chinese firms.

We find that the two types of firms have different governance characteristics. SOE firms have a larger boards, fewer board meetings, lower proportion of independent directors, and lower managerial ownership than do private firms. In addition, compared to the private firms, SOE firms appoint more independent directors from academia. Also, the Chairperson in an SOE firm is less likely to be the CEO. The age of directors of SOE firms and their educational level are on average higher than those of private firms. In general, we find that the relation between firm performance and board and firm characteristics are fairly consistent over these two types of firms, except for two characteristics about independent directors. Specifically, for a private firm, hiring independent directors from academia hurts the firm’s financial performance while the appointment of independent directors from academia does not harm the SOE firm’s performance. Meanwhile, hiring independent directors who have accounting skills is beneficial to an SOE firm’s performance whereas for a private firm, its financial performance is unaffected even when it hires independent directors with accounting skills.

The remainder of this paper is organized as follows. Section two briefly reviews the literature on corporate governance for Chinese listed firms. Data collection, research design and methodology, and description of variables are explained in Section three. Section four presents the empirical results. Section five provides analysis and discussion on our findings, and eventually the conclusion is drawn in Section six.

2. Literature Review on Corporate Governance of Chinese Firms

Corporate governance research has intensified in the wake of infamous financial frauds and scandals at Enron, WorldCom, Parmalat, etc., of which people blamed the poor corporate governance mechanisms (Johnson, Boone, Breach, and Friedman, 2000). Recently, researchers have begun examining corporate governance in emerging markets. Governance in these markets is important because some institutional investors have identified it as a key factor influencing their willingness to invest in these markets.

The Chinese government has promulgated a series of laws and regulations to facilitate the development of corporate governance in the Chinese economy, but it is still evolving. The rapid development of the Chinese markets and corporate governance give us an opportunity to examine how governance systems evolve. Publicly traded firms in China arose from two backgrounds. One form is the typical proprietorship or partnership, and the other business form is SOEs, which were established and governed by appointed officials from different levels of government in China. Even after going public, SOE firms are still similar to non-public SOE firms with respect to their corporate governance. For instance, even after going public, the SOE firms are still enjoying voluminous supports in a variety of ways from the government or government agencies. This unique feature could put private firms in an unfavorable position. The management of SOE firms is still appointed by the government although the directors are theoretically elected by shareholders (of which the government is a dominant member). On the contrary, the private firms basically become authentic public firms after going public since their routine operations just fit the typical image of a private firm, and most importantly, they are much more independent from the government regarding the corporate governance. Liu (2005) argues that the Chinese stock markets are organized by the government as a vehicle for its SOEs to raise capital and improve operating performance. Since the primary objective of developing equity markets in China is to help SOEs relax their external financing constraints, the regulations introduced have been asymmetrically in favor of SOEs or companies with close ties to the government. Shleifer and Vishny (1998) propose the “grabbing hand” argument that bureaucrats/politicians extract resources from listed SOEs under their control to fulfill objectives that are not consistent with firm value maximization.

Current research on corporate governance in China has increased in quantity, but most of the studies have only scratched the surface. Liu (2005) documents that the current corporate governance practices of Chinese firms can be best described as a control-based model, which strikingly contrasts with the market-oriented model commonly used in the U.S. and the U.K. Sun and Tong (2003) find that share issue privatization is related to improved corporate performance. Bai, Liu, Lu, Song and Zhang (2004) find that large holding by the largest shareholder, the CEO being the Chairperson or Vice Chairperson of the board, and the largest shareholder being the government has negative effects on firm value.

After the SOE firms go public, government regulations could serve as an effective governance mechanism, especially when the law and law enforcement are weak or insufficient (Johnson, Glaeser, and Shleifer, 2001). Since the legal infrastructure is particularly weak in China, Pistor and Xu (2005) argue that the so-called “administrative governance” has played an active and positive role in the development of the Chinese stock markets, at least in the earlier stage. However, more recent evidence shows that government regulations are also the source of many problems. For instance, Fan, Wong, and Zhang (2007) find that firms with politically connected CEOs are more likely to have boards populated by current or former government bureaucrats. The accounting and stock return performances of the firms managed by politically connected CEOs are poor relative to their politically

unconnected counterparts. Moreover, in a related study, Chan, Fan and Wong (2004) find that politicians and state-controlling owners in China occupy most board seats, and almost 50% of the directors are appointed by the state-controlling owners and another 30% are affiliated with various layers of government agencies. There are a few professionals (lawyers, accountants, and finance experts) in the boards of Chinese firms while representatives for minority shareholders could be hardly found.
In their research on corporate governance in private firms after going public, Ren and Peng (2008) document that the private firms have improved their efficiency in corporate governance although the improvement in financial performance has not been confirmed. Wang and Shao (2007) argue that stock ownership concentrated in the hands of blockholders affects the efficiency of corporate governance, and the private firms lack the efficient restriction systems of blockholders. Meanwhile, Huang, Xu, and Yue (2006) find that the proportion of independent directors in the boards of private firms is relatively higher than that in the boards of SOE firms.

The traditional view on corporate governance believes that two potential board approaches may achieve the required systems of corporate governance in transitional economies: (1) privatization approach and (2) government-controlled approach. Empirical findings indicate that privatization indeed has brought some benefits to the Chinese public firms. For example, Zhang and Zhang (2004) provide evidence that private firms outperform SOEs in terms of operational efficiency, profitability, capital structure, and market evaluation; however, due to the wide range of firm qualities of these private firms, the potential risk of investing in these private firms is also high. On the other hand, the government-controlled approach has been advocated by Qian (1995), who argues that the prevalence of pure privatization in China is still less possible at the present time. The SOEs owned by the Chinese local governments could report outstanding financial performance although the financial reports of those SOEs have possibly been window-dressed to certain extent before they are disclosed to the public. Obviously, this is not the desired result of good governance.

It is generally believed that a market-oriented governance model should eventually be put in place in China. During this process, Chinese firms' governance systems would finally emulate the standards of governance implemented in developed nations, such as the U.S. Since they have been private companies by origin even before going public, the private firms would be closer to reach this ultimate objective. Our study aims at examining the characteristics of board structure that affect the public firm's financial performance. Furthermore, through comparisons we investigate the differences between the public firms that used to be pure private firms before going public and those which used to be pure SOEs before going public. Whether private firms or SOE firms have more efficient corporate governance is an empirical question analyzed in this study. Hence, we propose the following hypothesis:

H: Private firms will have different corporate governance than SOE firms after they go public.

3. Data and variables

Sample and all accounting data are gathered from *Wind,* which is a leading financial data firm in China, and the period of analysis covers 2005 through 2008. In accordance with our research objective in this paper, the sample firms are categorized into two groups, i.e., whether the firm was a private firm before going public (called "private firm" henceforth) or an SOE firm before going public (called "SOE firm" henceforth). Our final sample consists of 3,019 sample firms, comprised of 2,174 SOE firms and 845 private firms. The data for all board characteristics are collected from several sources including the CSMAR and official websites of the sample firms.

3.1 Dependent variable

The main measure of firm performance is Tobin's Q, calculated as the sum of market value of equity and book value of debt, divided by book value of assets. Our measure for Q is the same as that utilized in Wei, Xie, and Zhang (2005). Tobin's Q is one of the most often used valuation measures in empirical research on corporate finance. Yermack (1996) and Fan, Wong, and Zhang (2007) all employ Q to proxy for firm performance, and find it to be an ideal gauge of firm performance. Thus, we select Q as the proxy for firm performance in this study. We also use return on equity (ROE) as an alternative measure of firm performance and replicate the whole analysis process whereby we find that the results essentially remain the same. The specific definition of Q is displayed in Table 1.

3.2 Independent variables

To conduct in-depth research, we select independent variables that have been found relevant to the corporate governance of Chinese public firms by previous studies. These variables include firm size, board size, board meeting frequency, the proportion of independent directors in the board, duality (whether the Chairperson of the board also holds the CEO position), managerial ownership, the proportion of independent directors who have accounting skills, the proportion of independent directors who are from academia, the average age of directors, the educational backgrounds of directors, and executive compensation. The definitions of these variables are reported in Table 1.

Board size has been found intertwined with less effective monitoring (Core et al., 1997) where large boards are associated with less effective monitoring (Core et al, 1997; Jensen, 1993; Yermack, 1996). Sun and Zhang's (2000) findings show that board size is negatively related to Tobin' Q for Chinese firms. If increased board size leads to less effective monitoring, we would expect firm performance to be the negatively related to board size.

Firm size often affects the efficiency of corporate governance. In China, large firms usually have more abundant resources to hire more competent CEOs and Chairpersons, and can provide desirable compensation packages to attract high-caliber executives. Besides, large firms offer higher social status and influence that will generate various intangible interests to the directors. Practically, large firms usually have substantial advantages over small private firms in China. Cichello (2005) ascertains that firm size is a key factor in determining the pay-performance sensitivity. Therefore, we expect that large firms in general have better performance than do small firms.

Board meeting frequency has been identified as an important dimension of board operations. However, whether high board meeting frequency is favorable to firm performance remains undetermined due to mixed evidence (Conger et al., 1998; Vafeas, 1999). The listed firms in China are still at the transition stage; thus, for the board of directors that still lacks the accumulated experiences in managing or supervising the firm, the benefits of more meetings is expected to outweigh the costs. Therefore, we conjecture that board meeting frequency is positively related to firm performance.

Much empirical evidence has displayed that duality is negatively related to firm performance for Chinese listed firms. For instance, Bai et al (2004) find that the CEO being the Chairperson or Vice Chairperson of the board has a negative impact on firm value. Huang et al. (2006) also find that duality is more likely to take place in private firms than in SOE firms. Part of the reasons is due to the common history of private firms whose founders usually continue dominating the firms even after they have gone public. Therefore, holding both the Chairman and the CEO positions is not unusual in private firms. However, although a founder may hold the dual positions, he is not necessarily competent in running the firm. Therefore, we expect that duality is negatively related to firm performance.

Managerial ownership is another factor often considered in research on corporate governance. Denis and Sarin (1999) find that ownership is weakly related to the changes in firm-specific determinants of ownership and board structure. Core and Larcker (2002) argue that mandatory increases in suboptimal equity ownership for executives are linked to the improvements in subsequent firm performance. Research on this area generally finds that there is mixed evidence of the significant relation between ownership structure and firm performance. As stock options and other stock-related compensation vehicles are increasingly adopted in China, we expect a positive relation between managerial ownership and firm performance.

The age of directors is another important factor in corporate governance. Older directors are usually more experienced and more likely to have gained enormous business skills and wisdom. Therefore, we expect that the older the average age of the board members, the better the firm performance will be. Similarly, we conjecture that the differences in educational backgrounds of directors could be a key factor as well. It is understandable that well-educated directors can fulfill their duties better than less educated directors. In this study, we consider a director having a bachelor’s degree (or higher) to be well educated. It is expected that a director with a bachelor's degree or higher are more beneficial to the firm than those without college diplomas.

The next key variable examined is executive compensation. Some research (Coughlan and Schmidt, 1985; Jensen and Murphy, 1990) on the area of executive compensation have dealt with the issue of the relation between executive compensation and firm performance. Those papers show that firm performance is largely and positively related to pay-performance sensitivity after controlling for risk. For Chinese firms, the relation between executive compensation and firm performance remains undetermined. We conjecture that higher compensation could motivate the management to deliver better firm performance.

The traditional perspective on the board of directors is in favor of independent directors as more independent directors in the board are expected to be able to monitor the management more effectively. According to the selecting procedures for independent directors in China, the independent directors are actually "outside directors." Huang, Xu, and Yue (2006) do not find a significant relation between the proportion of independent directors and firm performance for Chinese public firms. Fama and Jensen (1983) argue that outside directors have an incentive to act as conscientious monitors for the management because they want to protect their reputation. Similarly, Weisbach (1988) finds that boards dominated by outsiders are more likely to replace the CEOs than insider-dominated boards. Empirical evidence finds that firm performance is linked to board composition (Brickley and James, 1987; Byrd and Hickman, 1992; and Rosenstein and Wyatt, 1990), and these studies consistently find that firm performance is superior when outside directors hold a significant percentage of board seats. Therefore, we believe that more independent directors in the board serve the firm better than the case where independent directors are fewer.

In China, it is of importance to investigate the backgrounds of incumbent directors to find the most suitable candidates for independent directors. We investigate whether independent directors have accounting expertise or are hired from academia, and examine the relation between these two characteristics and firm performance. As hiring independent directors from academia has become a routine practice in China, we accordingly purport to measure the efficiency of hiring independent directors from academia. In addition, accounting skills would furnish independent directors with the expertise to analyze financial reports or monitor the financial decision-making of the firm. Moreover, the independent directors selected from academia should also have necessary skills to comprehend the routine business operations of the firm they serve.
The academic fields of these independent directors are normally related to the lines of business of the hiring firm. Kroszner and Strahan (2001) find that having bankers on board can play the role of monitors, and the major reason is that the bankers have the expertise and skills in understanding the business and monitoring the CEO's performance. We follow the same line of thought here. However, the tricky part is

that these independent directors hired from academia may grasp the theoretical part of business and financial management, but not necessarily understand the practical side of business operations. Whether the academic backgrounds of independent directors can bring benefits to the firm is an empirical issue. Nevertheless, it is commonsense that with finance and accounting skills the independent directors could better understand the detailed financial situation of the firm, and help monitor and advise the management, this is reasonably an advantage. We expect more independent directors with accounting skills will strengthen the firm performance.

4. Empirical methods and results

4.1 Descriptive statistics

Since we examine the board structures of SOE firms and private firms, respectively, we firstly compare their board characteristics. Subsequently, we use the ordinary least squares (OLS) regression model to test the relation between these governance variables and financial performance. Table 2 contains the summary statistics for Q values of sample firms according to industry classifications and distribution over time. The descriptive statistics in Panel A show that sample firms cover almost all industries, and the mean Q values range from 1.409 for ferrous metal industry to 2.908 for information services industry. The descriptive statistics in Panel B indicate that the mean Q value in 2007 was significantly higher than those in the previous two years, and this trend matches the changes in market values of listed stocks over the same period.

The statistics for combined sample firms, i.e., private and SOE firms, are displayed in Table 3. Tobin's Qs are 2.05 and 2.32 for SOE firms and private firms, respectively. In addition, SOE firms are larger in size than private firms. The board of SOE firms on average has 10.1 directors, compared to about 9.3 directors for private firms. The board meeting frequency is 8.35 times a year for SOE firms and about nine times a year for private firms. With respect to the proportion of independent directors, SOE firms and private firms are quite close, 34% versus 35%, respectively. Regarding duality, 10% of the board Chairs of SOE firms are also the CEOs while this statistics reaches 17% for private firms. Average managerial shareholding value is 54.1 million for SOE firms whereas it is much larger for private firms, 853.3 million. The proportion of independent directors who have accounting skills is 34.5% for SOE firms versus 35.5% for private firms. The percentage of independent directors who have academic background is 50.3% for SOE firms and 48% for private firms. The percentage of directors who have a bachelor's degree or higher is 87% for SOE firms versus 83% for private firms. Meanwhile, the average compensation for directors of SOE firms is 81,443 versus 64,257 for private firms.

Subsequently, Table 4 provides the correlation coefficients for all independent variables, and the results show that there are not many high correlations among the independent variables. Thus, multicollinearity is not an issue in this study. Table 5 reports the univariate comparison analysis between SOE firms and private firms in terms of board and firm characteristics. Results show that private firms have better financial performance than do SOE firms as shown by the higher Q value of private firms with t-statistic of -5.041. This result is consistent with prior empirical findings. The SOE firms have a larger board of directors than do private firms (with t-statistic of 8.095), and SOE firms are also larger in size than private firms (with t-statistic of 4.346). However, the frequency of board meetings is significantly higher in private firms than in SOE firms. The proportion of independent directors in the board is also significantly higher for private firms than that for SOE firms. Whether this implies that independent directors play a more important role in private firms than in public firms will be examined later. As to the measure for duality, the Chairperson is more likely to hold the CEO position in private firms (with t-statistic of -4.89). As conjectured, the founder of a private firm often acts as the Chair of the board even after going public, and he or she usually still maintains the control over routine operations. The value of managerial shareholding is significantly higher for private firms than that for SOE firms, and this is consistent with the practice in China as private firms are more likely to align the interests of shareholders with that of management by offering high stock ownership to the management.

Regarding the proportion of independent directors who have accounting skills, we find that this measure for private firms is not significantly different from that for SOE firms. However, the proportion of independent directors hired from academia for SOE firms is marginally higher than that for private firms (with t-statistic of 1.821). The average age of directors of SOE firms is significantly higher than that of private firms. Meanwhile, the percentage of board members who have obtained university diplomas is 85.6% for private firms versus 86.6% for SOE firms, and the difference is significant, suggesting that SOE firms' directors have better educational backgrounds. Moreover, executive compensation is significantly higher for SOE firms than for private firms, which is consistent with current remuneration systems in China.

Overall, the findings indicate that private firms are materially different from SOE firms in most of the board and firm characteristics. The private firms enjoy higher management efficiency since the results suggest that they have more favorable Q, board size, board meeting frequency, and independent director ratio relative to the SOE firms. The comparison results for other characteristics, such as duality, managerial shareholding, the proportion of directors hired from academia, average age of directors, and educational backgrounds of directors, should be interpreted more cautiously because whether a higher score is better or vice versa in terms of corporate governance efficiency is an empirical question, and previous studies on these variables provided very mixed conclusions.

4.2 Multivariate analysis

We harness the fixed effects regression technique to test the relation between firm performance (Q) and the board and firm characteristics. Here Q is the dependent variable and the board and firm characteristics are independent variables. The model used is as follows:

$$Q_{it} = ln\_asset_{it} + ln\_meeting_{it} + duality_{it} + top\_value_{it} + board\_size_{it} + indep\_ratio_{it} + private_{it} + accountant_{it} + academic_{it} + av\_age_{it} + av\_edu_{it} + T3m\_comp_{it} + \varepsilon_{it}$$

One of our objectives is to find the differences in board characteristics between these two types of firms and ascertain the determinants of their board compositions. Hence, we run three regressions for the whole sample, private firms sample, and SOE firms sample, respectively. The estimated regression results for the three sample groups are presented in Table 6.

Regression results for the whole sample are presented in first column. The estimated coefficient on the dummy variable "private" is significant at 1% level, and this result reveals that private firms outperform public firms. This finding substantiates our conjecture. Higher board meeting frequency is positively related to firm performance, meaning that if the board meets more often, it benefits the firm by enhancing financial performance. The coefficient on managerial shareholding value is positive and significant at 1% level. Accordingly, enlarging the management shareholding could lead to the firm performing better, and this is consistent with the traditional finding on managerial ownership. Surprisingly, the coefficient on board size is not significant, implying that board size is unrelated to the firm's financial performance. The average age of board members is positively and significantly related to firm performance. This somehow confirms that older directors bring more benefits to the firm, and it should be ascribed to the experiences of these older directors. The estimated coefficient on the proportion of directors with a college degree of higher is positive and significant, thus confirming our conjecture that more education of directors is favorable to the firm, which is also in line with prior empirical results (Fan, Wong, and Zhang, 2007). As expected, executive compensation is positively and significantly related to Q. Higher compensation indeed would motivate the executives to deliver better performance.

The regression results for private firms and SOE firms are displayed in columns two and three, respectively. The regression results in column two essentially remain the same as those in column one, except that the variable "academic" now has a significant and negative coefficient. This implies that hiring independent directors from academia actually do a disservice to a private firm's performance. The "academic" directors might be too concept/theory oriented while insufficient in interpersonal and practical skills or real-time business trainings.

The regression results for SOE firms in column three are obviously different from those for private firms. First, firm size is significantly and positively related to firm performance, meaning that large firms on average perform better than small firms. Large SOE firms in China often enjoy helps or supports from the government in a variety of ways (Fan, Wong, and Zhang, 2007). Besides, since the large SOE firms are often more important to the Chinese economy because they usually operate in the so-called "pillar industries" such as high-tech and national defense, they are naturally more likely to show stronger performance. Subsequently, duality now has a positive and significant coefficient, and this suggests that the Chairperson holding the CEO position actually benefits the SOE firm. In contrast, for private firms, duality is not related to firm performance. For the SOE firms, when the Chairperson holds the dual seats, the friction between the Chair and the CEO is mitigated. The CEO and the Chair usually do not have the same background, and it is not uncommon that both of them do not have much experience in leading a corporation. In addition, in the case of SOE firms, both positions are usually appointed by government agencies. On the contrary, a private firm's Chairperson and CEO are factually selected and appointed by the firm's shareholders, and therefore the process is barely intervened by the government. Next, it is also interesting that the coefficient on the variable "accountant" is significantly positive for the case of SOE firms. We understand that if the hired independent directors are proficient in accounting, the acumen can greatly facilitate the directors' monitoring tasks since the skills will provide them with a useful weapon in comprehending the financial circumstances and decision-making of the firm (Fan, Wong and Zhang, 2007).

If we compare the results between columns two and three, we find that selecting directors who have accounting skills by private firms does not bring any benefit to the financial performance. Even worse, independent directors hired from academia are counterproductive to the firm. Conversely, for an SOE firm, hiring independent directors who have accounting skills is beneficial to the firm, whereas appointing independent directors from academia does not hurt. Overall, the interesting findings on the dummy variables "accountant" and "academic" merit a thorough analysis. It seems that independent directors who either have accounting background or are hired from academia will generate different outcomes for the firm's financial performance, depending on whether the firm had been a pure private firm or an SOE firm before they went public.

We also conduct robustness checks on our findings by running regressions with control sample. We build the control sample in the following way. We use the original private firms sample as the benchmark to gather the matched SOE firms sample. For each firm in the private firms sample, we select one matching SOE firm. We impose two requirements here. First, this SOE firm must be in the same industry as the private firm. Second, the size of this SOE firm must be as close to the size of the private firm as possible. For those private firms that are outliers in terms of size, which are usually too small to obtain matching SOE firms, we drop them from the private firms sample. After the selection process, we obtain the matched SOE firms sample consisting of 731 firms. The regression results using the matched sample are presented in Table 7. Most regression results using the control sample remain consistent with the results shown in Table 6. However, there are some distinctions.

For example, firm size now has significant coefficients in all three columns. For the private firms sample, the coefficient on firm size is positively and significantly related to Q, meaning that after we get rid of those small private firms (about 114 firms) from the original private firms sample, we find that larger private firms indeed perform better than small private firms. However, for the matched SOE firms sample, the coefficient on firm size is negative and significant, thus showing that firm size is inversely related to firm performance. Interestingly, the coefficient on variable "academic" is different from the result in Table 6. This variable coefficient is now positive and significant. For SOE firms in the control sample, which comprises relatively small SOE firms, the independent directors hired from academia are beneficial to the firm. This implies that for large SOE firms, having independent directors from academia does not affect firm performance, while for small SOE firms, the presence of those "academic" directors brings a positive impact. The regression results with respect to other variables remain the same as those in Table 6. In summary, the regression results using the control sample confirms one important and robust finding: for private firms, hiring independent directors from academia hurts the firm's financial performance, but SOE firms benefit from hiring independent directors with accounting background as well as from academia.

Why is the relation between firm performance and independent directors' backgrounds inconsistent between SOE and private firms? One possible reason is that SOE firms are larger, more pivotal to the Chinese national economy, have more resources, and also get more supports from the government. Accordingly, more competent and qualified candidates for independent directors who are from academia or with accounting skills prefer SOE firms to private firms. Another possible rationale is that private firms are just careless when selecting independent directors, and those independent directors hired from academia are perfunctory when fulfilling their duties. As a whole, the regression results reveal that SOE firms have done a better job in selecting independent directors with accounting skills and do not suffer any loss from hiring independent directors from academia; on the other hand, private firms are counterproductive in appointing independent directors from academia. Therefore, we could infer that SOE firms in China are relatively superior to private firms in many aspects, which give them an edge in selecting quality independent directors. Private firms simply do not have the same resources, connections, and social influence as do the SOE firms in China. Nevertheless, we should not exclude the possibility that the founders of private firms intentionally hire incapable independent directors to maintain their dominance and control over the firms, and essentially just keep the independent directors as dummies. This is another empirical issue that should be investigated in future research.

5. Conclusion

The primary findings of this paper show that listed companies in China originated from either private firms or SOE firms before they went public have different corporate governance and financial characteristics. For example, compared to private firms, SOE firms have a larger board, less board meeting frequency, lower proportion of independent directors in the board, and lower managerial ownership. Furthermore, SOE firms appoint more independent directors from academia than do private firms, and the Chairperson is less likely to be the CEO. In addition, the average age of directors of SOE firms is higher than that of private firms, and the educational level of SOE firms' directors is on average higher. In general, we find that the relation between firm performance and board and firm characteristics are fairly consistent over these two types of firms, except for two characteristics about independent directors. Specifically, for a private firm, hiring independent directors from academia hurts the firm's financial performance while the appointment of independent directors from academia does not harm the SOE firm's performance. Meanwhile, hiring independent directors who have accounting skills is beneficial to an SOE firm's performance whereas for a private firm, its financial performance is unaffected even when it hires independent directors with accounting skills. This finding enlightens us that private firms in China should be more perceptive in selecting independent directors from academia. Clearly, SOE firms have done a better job in hiring independent directors with accounting skills and do not suffer any loss from hiring independent directors from academia. On the other hand, private firms are counterproductive in appointing independent directors from academia.

To conclude, the contribution of this paper is to shed light on the differences in corporate governance between private firms and SOE firms after they have become listed firms in China. More attention should be paid to the selection procedures for independent directors for both private firms and SOE firms in China.

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Table 1 Variable Definitions

This table describes the definition of each variable used in this paper.

Variable	Definition
Q	A measure of Tobin's Q, book value of total debt plus market value of total equity, divided by the book value of total assets. We drop sample firms with Q > 10 or Q < 0.3
Asset	Book value of total assets, in million
Private	Dummy variable, equals one if the listed firm has private controlling shareholder(s), zero if the controlling shareholder is the state
board_size	Number of board members, we use the natural log in the regression models
meeting	Number of board meetings held in the corresponding fiscal year, log transformed in regression models
indep_ratio	Number of independent board members divided by board size
Duality	Dummy variable, equals one if the Chairperson of the board is also the CEO of the firm
top_value	Market value of shares outstanding held by top managers and board members, measured in 100,000. We use log transformation in regression analysis
accountant	Percentage of independent directors who have accounting background
academic	Percentage of independent directors who are academics
av_age	Average age of the board members
av_edu	Percentage of the board members who have college education or higher
t3m_comp	The sum of the highest three compensations of executives, we use log transformation in regression models

Table 2 Values of Qs across Industries and Years

This table reports the values of Qs for all sample firms, and these sample firms have been categorized into subsamples according to industry classifications and distributions over time.

Panel A: Across industries

Industry	Sample size	Mean	Median	Std. Dev.
Mining	74	2.426	1.716	1.548
Restaurant & Food Services, Tourism	55	2.747	2.492	1.634
Electronics/Semiconductor/IC	95	2.095	1.643	1.326
Real Estate	273	2.314	1.752	1.585
Clothing and Garment	99	1.807	1.548	1.162
Ferrous Metal	85	1.409	1.110	0.586
Chemical	329	2.019	1.525	1.298
Machinery	267	2.155	1.692	1.284
Home Appliances	59	1.587	1.246	0.883
Construction materials	151	1.699	1.328	0.894
Transportation	157	2.031	1.630	1.032
Transportation equipment	166	2.133	1.694	1.396
Agriculture/Fishing/Forestry	104	2.065	1.458	1.430
Light Industry	85	1.911	1.471	1.333
Trading, wholesale and retail	183	1.990	1.644	1.089
Food & Beverage	112	2.481	2.058	1.505
Information Service	103	2.908	2.354	1.751
Telecom & Network Equipment	98	2.151	1.741	1.192
Pharmaceuticals/Biotechnology	287	2.204	1.698	1.451
Nonferrous Metal	103	2.360	1.792	1.588
Conglomerates	134	2.125	1.573	1.483
Total	3019	2.124	1.638	1.367

Panel B: Across years

Year	Sample	Mean	Median	Std. Dev.
2005	994	1.366	1.202	0.627
2006	1025	1.790	1.485	0.974
2007	1000	3.220	2.797	1.546
Total	3019	2.124	1.638	1.367

Table 3 Descriptive Statistics

This table presents the descriptive statistics for all board and firm characteristics. Q is the book value of total debt plus the market value of total equity, divided by the book value of total assets. Asset is the book value of total assets. Private is a dummy variable which equals 1 if the listed firm has private controlling shareholder(s) and 0 if the controlling shareholder is the state. Board_size is the number of board members, and we use the natural log in the regression models. Meeting is the number of board meetings held in the corresponding fiscal year, log transformation is used in regression models. Indep_ratio is the number of independent directors divided by board size. Duality is a dummy variable which equals 1 if the Chairperson of the board is also the CEO of the firm, and 0 otherwise. Top_value is the market value of shares outstanding held by top managers and board members, measured in 100,000, and we use log transformation in regression analysis. Accountant is the percentage of independent directors who have accounting background. Academic is the percentage of independent directors who are academics. Av_age is the average age of the board members. Av_edu is the percentage of the board members who have college education or higher. T3m_comp is the sum of the highest three compensations of executives, we use log transformation in regression models.

	Variables	Sample	Mean	Sdt. Dev.	Min	Median	Max
SOE	Q	2174	2.046	1.277	0.668	1.605	9.588
	asset	2174	5979.23	26407.49	107.88	2191.62	718572
	board_size	2174	10.093	2.503	4	9	30
	meeting	2174	8.349	3.445	3	8	36
	indep_ratio	2174	0.344	0.046	0.083	0.333	0.571
	duality	2174	0.103	0.305	0	0	1
	top_value	2174	541.40	8539.84	0	8.41	360555
	accountant	2174	0.345	0.165	0	0.333	1
	academic	2174	0.503	0.316	0	0.500	1
	av_age	2174	50.011	3.586	36	50.095	63.222
	av_edu	2174	0.866	0.142	0.143	0.889	1
	t3m_comp	2174	81.443	85.419	2.690	61.185	1412
Private	Q	845	2.324	1.558	0.742	1.741	9.824
	asset	845	2024.295	2368.171	107.316	1298.276	35344
	board_size	845	9.301	2.177	5	9	25
	meeting	845	8.994	3.755	3	8	35
	indep_ratio	845	0.351	0.050	0.111	0.333	0.600
	duality	845	0.168	0.374	0	0	1
	top_value	845	8523.69	52670.10	0	3.76	1062950
	accountant	845	0.355	0.165	0	0.333	1
	academic	845	0.480	0.332	0	0.500	1
	av_age	845	47.507	3.732	38.250	47.111	61.556
	av_edu	845	0.829	0.172	0.111	0.889	1
	t3m_comp	845	64.257	63.066	2.400	45.800	537.880

	Variables	Sample	Mean	Sdt. Dev.	Min	Median	Max
Total	Q	3019	2.124	1.367	0.668	1.638	9.824
	asset	3019	4872.265	22512.82	107.316	1884.953	718572
	private	3019	0.280	0.449	0	0	1
	board_size	3019	9.871	2.442	4	9	30
	meeting	3019	8.529	3.546	3	8	36
	indep_ratio	3019	0.346	0.047	0.083	0.333	0.600
	duality	3019	0.122	0.327	0	0	1
	top_value	3019	2775.60	29002.75	0	7.07	1062950
	accountant	3019	0.347	0.165	0	0.333	1
	academic	3019	0.497	0.321	0	0.500	1
	av_age	3019	49.310	3.797	36	49.364	63.222
	av_edu	3019	0.856	0.152	0.111	0.889	1
	t3m_comp	3019	76.633	80.158	2.400	56.720	1412

Table 4 Sample Correlations (the measure is log transformed if needed)

This table shows the Pearson correlations of the 12 variables used in this study. Q is the book value of total debt plus the market value of total equity, divided by the book value of total assets. Asset is the book value of total assets. Private is a dummy variable which equals 1 if the listed firm has private controlling shareholder(s) and 0 if the controlling shareholder is the state. Board_size is the number of board members, and we use the natural log in the regression models. Meeting is the number of board meetings held in the corresponding fiscal year, log transformation is used in regression models. Indep_ratio is the number of independent directors divided by board size. Duality is a dummy variable which equals 1 if the Chairperson of the board is also the CEO of the firm, and 0 otherwise. Top_value is the market value of shares outstanding held by top managers and board members, measured in 100,000, and we use log transformation in regression analysis. Accountant is the percentage of independent directors who have accounting background. Academic is the percentage of independent directors who are academics. Av_age is the average age of the board members. Av_edu is the percentage of the board members who have college education or higher. T3m_comp is the sum of the highest three compensations of executives, we use log transformation in regression models. * indicates significance at 5% level.

[illegible]	
ln_asset	[illegible]
private	[illegible]
board_size	[illegible]
ln_meeting	[illegible]
indep_ratio	[illegible]
duality	[illegible]
top_value	[illegible]
accountant	[illegible]
academic	[illegible]
av_age	[illegible]
av_edu	[illegible]
t3m_comp	[illegible]

Table 5 Univariate Results

This table presents the univariate comparison results between private firms and SOE firms in terms of board and firm characteristics. Q is the book value of total debt plus the market value of total equity, divided by the book value of total assets. Asset is the book value of total assets. Private is a dummy variable which equals 1 if the listed firm has private controlling shareholder(s) and 0 if the controlling shareholder is the state. Board_size is the number of board members, and we use the natural log in the regression models. Meeting is the number of board meetings held in the corresponding fiscal year, log transformation is used in regression models. Indep_ratio is the number of independent directors divided by board size. Duality is a dummy variable which equals 1 if the Chairperson of the board is also the CEO of the firm, and 0 otherwise. Top_value is the market value of shares outstanding held by top managers and board members, measured in 100,000, and we use log transformation in regression analysis. Accountant is the percentage of independent directors who have accounting background. Academic is the percentage of independent directors who are academics. Av_age is the average age of the board members. Av_edu is the percentage of the board members who have college education or higher. T3m_comp is the sum of the highest three compensations of executives, we use log transformation in regression models. * indicates significance at 10% level, ** indicates significance at 5% level, *** indicates significance at 1% level.

	[illegible]
Q	[illegible]
assets	[illegible]
board_size	[illegible]
meeting	[illegible]
indep_ratio	[illegible]
duality	[illegible]
top_value	[illegible]
accountant	[illegible]
academic	[illegible]
av_age	[illegible]
av_edu	[illegible]
t3m_comp	[illegible]

Table 6 Multivariate Analysis Results

The multivariate analysis results with original private firms sample and original SOE firms sample using the fixed effects model are presented in this table. The dependent variable is Q, which is the book value of total debt plus the market value of total equity, divided by the book value of total assets. Independent variables are as follows. Asset is the book value of total assets. Private is a dummy variable which equals 1 if the listed firm has private controlling shareholder(s) and 0 if the controlling shareholder is the state. Board_size is the number of board members. Meeting is the number of board meetings held in the corresponding fiscal year. Indep_ratio is the number of independent directors divided by board size. Duality is a dummy variable which equals 1 if the Chairperson of the board is also the CEO of the firm, and 0 otherwise. Top_value is the market value of shares outstanding held by top managers and board members, measured in 100,000. Accountant is the percentage of independent directors who have accounting background. Academic is the percentage of independent directors who are academics. Av_age is the average age of the board members. Av_edu is the percentage of the board members who have college education or higher. T3m_comp is the sum of the highest three compensations of executives. The value of t statistics is shown in parentheses. * indicates significance at 10% level, ** indicates significance at 5% level, *** indicates significance at 1% level.

	(1)	(2)	(3)
	whole sample	private sample	SOE sample
ln_asset	0.1483	0.2293	0.1985
	(1.5558)	(1.0581)	(1.9001)*
ln_meeting	0.9630	1.1016	0.8137
	(11.1716)***	(5.4320)***	(8.8011)***
duality	0.1640	-0.2113	0.2790
	(1.3906)	(0.9739)	(1.9182)*
top_value	0.2852	0.2124	0.3783
	(10.7613)***	(4.7726)***	(10.9060)***
board_size	-0.2923	-0.6576	-0.2841
	(1.3135)	(1.3317)	(1.1501)
indep_ratio	3.5786	4.9079	2.6066
	(4.8960)***	(3.0555)***	(3.2577)***
private	0.3132		
	(2.0007)**		
accountant	0.0292	-1.1028	0.6597
	(0.0928)	(1.5513)	(1.9263)*
academic	-0.3261	-1.1318	-0.0190
	(1.6283)	(2.3729)**	(0.0872)
av_age	4.5316	8.1712	2.8816
	(5.6877)***	(4.3650)***	(3.2690)***
av_edu	1.8254	3.0940	1.5757
	(4.1766)***	(3.2544)***	(3.1622)***
Managerial compensation	0.8894	0.9880	0.8943
	(13.4167)***	(7.1693)***	(11.5923)***
Constant	-25.0107	-39.4314	-18.8233
	(7.6900)***	(5.3044)***	(5.1985)***
Observations	3019	845	2174
Number of Firms	1107	351	826
R-squared	0.3420	0.3616	0.3683

Table 7 Multivariate Analysis with Control Sample Firms (Robustness Checks)

The multivariate analysis results with control sample firms using the fixed effects model are presented in this table. The dependent variable is Q, which is the book value of total debt plus the market value of total equity, divided by the book value of total assets. Independent variables are as follows. Asset is the book value of total assets. Private is a dummy variable which equals 1 if the listed firm has private controlling shareholder(s) and 0 if the controlling shareholder is the state. Board_size is the number of board members. Meeting is the number of board meetings held in the corresponding fiscal year. Indep_ratio is the number of independent directors divided by board size. Duality is a dummy variable which equals 1 if the Chairperson of the board is also the CEO of the firm, and 0 otherwise. Top_value is the market value of shares outstanding held by top managers and board members, measured in 100,000. Accountant is the percentage of independent directors who have accounting background. Academic is the percentage of independent directors who are academics. Av_age is the average age of the board members. Av_edu is the percentage of the board members who have college education or higher. T3m_comp is the sum of the highest three compensations of executives. The value of t statistics is shown in parentheses. * indicates significance at 10% level, ** indicates significance at 5% level, *** indicates significance at 1% level.

	(1)	(2)	(3)
	whole sample	private sample	SOE sample
ln_asset	0.2960	0.6069	-0.5362
	(1.8197)*	(2.7229)***	(2.3564)**
ln_meeting	1.0771	0.9884	1.1869
	(7.5425)***	(4.9053)***	(6.6310)***
duality	0.0833	-0.1959	0.4911
	(0.5181)	(0.9064)	(2.0480)**
top_value	0.2702	0.2106	0.8217
	(7.1370)***	(4.6256)***	(9.3242)***
board_size	-0.1598	-0.3330	-0.0308
	(0.4582)	(0.6532)	(0.0739)
indep_ratio	5.7404	5.3089	4.5497
	(4.8690)***	(3.1957)***	(3.1282)***
private	0.6673		
	(2.6559)***		
accountant	0.0850	-0.0414	1.7839
	(0.1538)	(0.0568)	(2.1700)**
academic	-0.2722	-0.8391	1.1730
	(0.7946)	(1.7547)*	(2.6353)***
av_age	6.5930	5.5696	7.6361
	(4.8570)***	(2.8670)***	(3.9235)***
av_edu	2.4208	2.5776	3.1902
	(3.4078)***	(2.7007)***	(2.6791)***
Managerial compensation	0.9950	1.0007	0.8330
	(9.4667)***	(7.1065)***	(5.2319)***
Constant	-36.3559	-33.1558	-36.7842
	(6.7010)***	(4.2500)***	(5.0039)***
Observations	1462	731	731
Number of firms	682	320	385
R-squared	0.4051	0.3990	0.5313

A Comparison of Chinese State-Owned Enterprise Firm's Boards and Private Firm's Boards

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Abstract

Using 3,019 listed firms in China divided into two subsamples, we compare the characteristics of corporate governance between private firms and State Owned Enterprise (SOE) firms after they have gone public on the Chinese stock markets. We examine the differences in board structure between these two types of firms. Results show that private firms and SOE firms have different governance characteristics. SOE firms have larger boards, meet less often, have a smaller proportion of independent directors on the board, have lower managerial ownership, have older directors, and have directors with a higher educational level of directors than do private firms. SOE firms also appoint more independent directors from academia, and their Chairpersons are less likely to be the CEOs. For private firms, hiring independent directors from academia hurts the firm's financial performance while the appointment of independent directors from academia does not harm the SOE firm's performance. Meanwhile, hiring independent directors who have accounting skills is beneficial to an SOE firm's performance whereas for a private firm, its financial performance is unaffected even when it hires independent directors with accounting skills. Our analysis indicates that in China, although private firms and SOE firms have theoretically become public firms, the SOE firms are relatively superior to the private firms in corporate governance efficiency, especially in appointing high-caliber independent directors.

Keywords: corporate governance, board of directors, firm performance, Chinese listed firms, private firms, state-owned enterprises, IPOs.
JEL classifications: G30, G34, G38.

1. Introduction

The Chinese economy has been experiencing a period of unparalleled growth in the past three decades. However, the corporate governance systems for Chinese companies are still developing. Establishing an efficient corporate governance system for Chinese firms is a pressing issue as part of the government's efforts to develop financial markets. The major challenge to corporate governance reform is that China began its corporate governance reform efforts before the elements of a well-functioning financial market were in place.

To explore the corporate governance systems for Chinese firms, we need to understand that the listed companies on the Chinese stock markets stemmed from two original business forms: (1) private firms, which are essentially the same as those in developed countries, and (2) state-owned enterprises (SOEs), which are fully owned by the Chinese government and usually run by government-appointed executives. Since SOE firms were the only business form in China until the early 1980s they are usually larger and have more resources than do private firms. Authentic private firms were allowed to be established in China only after the 1980s, and these private firms are more likely small in size and constrained by a vast array of regulations. Although many of both types of the firms have gone public, their differences remain substantial, in terms of firm size, market share, lines of business, competitiveness, and most importantly the efficiency of their corporate governance.

The SOE structure has resulted in complex governance issues with respect to board structure and the independence of the board of directors from the management team. China basically adopts a quasi-two-tier board structure comprised of a board of directors and a supervisory board. Supervisory directors are not involved in the selection of directors and managers and, therefore do not have the authority to supervise them effectively. In addition, the state and majority shareholders (which are usually government agencies, holding more than half of the total outstanding shares of listed firms) still play a dominant role in the appointment of independent directors, the Chairperson, the CEO, and senior executives. Business leaders as well as academics have voiced their concerns that there should be a mechanism for allowing the appointment of true independent directors to represent or at least communicate with minority shareholders.

In China, minority shareholders are a highly fragmented group of individuals since institutional investors do not play a material role. Retail investors in China, as in many markets around the world, often lack investment knowledge and awareness of shareholder rights. It is relatively difficult for individual investors in China to enforce any legal rights against a listed company for negligence or fraud. Lacking financial resources and understanding of the investment landscape, these small investors are not able to take any action when their rights are infringed by the company or major shareholders. Given these circumstances, the importance of independent directors may be magnified. Besides, executive compensation generally consists of fixed salary plus cash bonuses.

Prior research has found corporate governance in China to have problems (Gibson, 2003，La Porta, Lopez-de-Silanes, Shleifer, and Vishny, 1998). Therefore, we propose to examine two governance issues in Chinese firms. First, due to the historical differences between SOE firms and private firms before they went public, we examine the differences in corporate governance between SOE and private firms after they go public. Second, we examine the board characteristics that determine the financial performance of listed Chinese firms.

We find that the two types of firms have different governance characteristics. SOE firms have a larger boards, fewer board meetings, lower proportion of independent directors, and lower managerial ownership than do private firms. In addition, compared to the private firms, SOE firms appoint more independent directors from academia. Also, the Chairperson in an SOE firm is less likely to be the CEO. The age of directors of SOE firms and their educational level are on average higher than those of private firms. In general, we find that the relation between firm performance and board and firm characteristics are fairly consistent over these two types of firms, except for two characteristics about independent directors. Specifically, for a private firm, hiring independent directors from academia hurts the firm’s financial performance while the appointment of independent directors from academia does not harm the SOE firm’s performance. Meanwhile, hiring independent directors who have accounting skills is beneficial to an SOE firm’s performance whereas for a private firm, its financial performance is unaffected even when it hires independent directors with accounting skills.

The remainder of this paper is organized as follows. Section two briefly reviews the literature on corporate governance for Chinese listed firms. Data collection, research design and methodology, and description of variables are explained in Section three. Section four presents the empirical results. Section five provides analysis and discussion on our findings, and eventually the conclusion is drawn in Section six.

2. Literature Review on Corporate Governance of Chinese Firms

Corporate governance research has intensified in the wake of infamous financial frauds and scandals at Enron, WorldCom, Parmalat, etc., of which people blamed the poor corporate governance mechanisms (Johnson, Boone, Breach, and Friedman, 2000). Recently, researchers have begun examining corporate governance in emerging markets. Governance in these markets is important because some institutional investors have identified it as a key factor influencing their willingness to invest in these markets.

The Chinese government has promulgated a series of laws and regulations to facilitate the development of corporate governance in the Chinese economy, but it is still evolving. The rapid development of the Chinese markets and corporate governance give us an opportunity to examine how governance systems evolve. Publicly traded firms in China arose from two backgrounds. One form is the typical proprietorship or partnership, and the other business form is SOEs, which were established and governed by appointed officials from different levels of government in China. Even after going public, SOE firms are still similar to non-public SOE firms with respect to their corporate governance. For instance, even after going public, the SOE firms are still enjoying voluminous supports in a variety of ways from the government or government agencies. This unique feature could put private firms in an unfavorable position. The management of SOE firms is still appointed by the government although the directors are theoretically elected by shareholders (of which the government is a dominant member). On the contrary, the private firms basically become authentic public firms after going public since their routine operations just fit the typical image of a private firm, and most importantly, they are much more independent from the government regarding the corporate governance. Liu (2005) argues that the Chinese stock markets are organized by the government as a vehicle for its SOEs to raise capital and improve operating performance. Since the primary objective of developing equity markets in China is to help SOEs relax their external financing constraints, the regulations introduced have been asymmetrically in favor of SOEs or companies with close ties to the government. Shleifer and Vishny (1998) propose the “grabbing hand” argument that bureaucrats/politicians extract resources from listed SOEs under their control to fulfill objectives that are not consistent with firm value maximization.

Current research on corporate governance in China has increased in quantity, but most of the studies have only scratched the surface. Liu (2005) documents that the current corporate governance practices of Chinese firms can be best described as a control-based model, which strikingly contrasts with the market-oriented model commonly used in the U.S. and the U.K. Sun and Tong (2003) find that share issue privatization is related to improved corporate performance. Bai, Liu, Lu, Song and Zhang (2004) find that large holding by the largest shareholder, the CEO being the Chairperson or Vice Chairperson of the board, and the largest shareholder being the government has negative effects on firm value.

After the SOE firms go public, government regulations could serve as an effective governance mechanism, especially when the law and law enforcement are weak or insufficient (Johnson, Glaeser, and Shleifer, 2001). Since the legal infrastructure is particularly weak in China, Pistor and Xu (2005) argue that the so-called “administrative governance” has played an active and positive role in the development of the Chinese stock markets, at least in the earlier stage. However, more recent evidence shows that government regulations are also the source of many problems. For instance, Fan, Wong, and Zhang (2007) find that firms with politically connected CEOs are more likely to have boards populated by current or former government bureaucrats. The accounting and stock return performances of the firms managed by politically connected CEOs are poor relative to their politically unconnected counterparts. Moreover, in a related study, Chan, Fan and Wong (2004) find that politicians and state-controlling owners in China occupy most board seats, and almost 50% of the directors are appointed by the state-controlling owners and another 30% are affiliated with various layers of government agencies. There are a few professionals (lawyers, accountants, and finance experts) in the boards of Chinese firms while representatives for minority shareholders could be hardly found.

In their research on corporate governance in private firms after going public, Ren and Peng (2008) document that the private firms have improved their efficiency in corporate governance although the improvement in financial performance has not been confirmed. Wang and Shao (2007) argue that stock ownership concentrated in the hands of blockholders affects the efficiency of corporate governance, and the private firms lack the efficient restriction systems of blockholders. Meanwhile, Huang, Xu, and Yue (2006) find that the proportion of independent directors in the boards of private firms is relatively higher than that in the boards of SOE firms.

The traditional view on corporate governance believes that two potential board approaches may achieve the required systems of corporate governance in transitional economies: (1) privatization approach and (2) government-controlled approach. Empirical findings indicate that privatization indeed has brought some benefits to the Chinese public firms. For example, Zhang and Zhang (2004) provide evidence that private firms outperform SOEs in terms of operational efficiency, profitability, capital structure, and market evaluation; however, due to the wide range of firm qualities of these private firms, the potential risk of investing in these private firms is also high. On the other hand, the government-controlled approach has been advocated by Qian (1995), who argues that the prevalence of pure privatization in China is still less possible at the present time. The SOEs owned by the Chinese local governments could report outstanding financial performance although the financial reports of those SOEs have possibly been window-dressed to certain extent before they are disclosed to the public. Obviously, this is not the desired result of good governance.

It is generally believed that a market-oriented governance model should eventually be put in place in China. During this process, Chinese firms' governance systems would finally emulate the standards of governance implemented in developed nations, such as the U.S. Since they have been private companies by origin even before going public, the private firms would be closer to reach this ultimate objective. Our study aims at examining the characteristics of board structure that affect the public firm's financial performance. Furthermore, through comparisons we investigate the differences between the public firms that used to be pure private firms before going public and those which used to be pure SOEs before going public. Whether private firms or SOE firms have more efficient corporate governance is an empirical question analyzed in this study. Hence, we propose the following hypothesis:

H: Private firms will have different corporate governance than SOE firms after they go public.

3． Data and variables

Sample and all accounting data are gathered from *Wind,* which is a leading financial data firm in China, and the period of analysis covers 2005 through 2008. In accordance with our research objective in this paper, the sample firms are categorized into two groups, i.e., whether the firm was a private firm before going public (called "private firm" henceforth) or an SOE firm before going public (called "SOE firm" henceforth). Our final sample consists of 3,019 sample firms, comprised of 2,174 SOE firms and 845 private firms. The data for all board characteristics are collected from several sources including the CSMAR and official websites of the sample firms.

3.1 Dependent variable

The main measure of firm performance is Tobin's Q, calculated as the sum of market value of equity and book value of debt, divided by book value of assets. Our measure for Q is the same as that utilized in Wei, Xie, and Zhang (2005). Tobin's Q is one of the most often used valuation measures in empirical research on corporate finance. Yermack (1996) and Fan, Wong, and Zhang (2007) all employ Q to proxy for firm performance, and find it to be an ideal gauge of firm performance. Thus, we select Q as the proxy for firm performance in this study. We also use return on equity (ROE) as an alternative measure of firm performance and replicate the whole analysis process whereby we find that the results essentially remain the same. The specific definition of Q is displayed in Table 1.

3.2 Independent variables

To conduct in-depth research, we select independent variables that have been found relevant to the corporate governance of Chinese public firms by previous studies. These variables include firm size, board size, board meeting frequency, the proportion of independent directors in the board, duality (whether the Chairperson of the board also holds the CEO position), managerial ownership, the proportion of independent directors who have accounting skills, the proportion of independent directors who are from academia, the average age of directors, the educational backgrounds of directors, and executive compensation. The definitions of these variables are reported in Table 1.

---------------------- *Insert Table 1 Here* ------------------------

Board size has been found intertwined with less effective monitoring (Core et al., 1997) where large boards are associated with less effective monitoring (Core et al, 1997; Jensen, 1993; Yermack, 1996). Sun and Zhang's (2000) findings show that board size is negatively related to Tobin' Q for Chinese firms. If increased board size leads to less effective monitoring, we would expect firm performance to be the negatively related to board size.

Firm size often affects the efficiency of corporate governance. In China, large firms usually have more abundant resources to hire more competent CEOs and Chairpersons, and can provide desirable compensation packages to attract high-caliber executives. Besides, large firms offer higher social status and influence that will generate various intangible interests to the directors. Practically, large firms usually have substantial advantages over small private firms in China. Cichello (2005) ascertains that firm size is a key factor in determining the pay-performance sensitivity. Therefore, we expect that large firms in general have better performance than do small firms.

Board meeting frequency has been identified as an important dimension of board operations. However, whether high board meeting frequency is favorable to firm performance remains undetermined due to mixed evidence (Conger et al., 1998; Vafeas, 1999). The listed firms in China are still at the transition stage; thus, for the board of directors that still lacks the accumulated experiences in managing or supervising the firm, the benefits of more meetings is expected to outweigh the costs. Therefore, we conjecture that board meeting frequency is positively related to firm performance.

Much empirical evidence has displayed that duality is negatively related to firm performance for Chinese listed firms. For instance, Bai et al (2004) find that the CEO being the Chairperson or Vice Chairperson of the board has a negative impact on firm value. Huang et al. (2006) also find that duality is more likely to take place in private firms than in SOE firms. Part of the reasons is due to the common history of private firms whose founders usually continue dominating the firms even after they have gone public. Therefore, holding both the Chairman and the CEO positions is not unusual in private firms. However, although a founder may hold the dual positions, he is not necessarily competent in running the firm. Therefore, we expect that duality is negatively related to firm performance.

Managerial ownership is another factor often considered in research on corporate governance. Denis and Sarin (1999) find that ownership is weakly related to the changes in firm-specific determinants of ownership and board structure. Core and Larcker (2002) argue that mandatory increases in suboptimal equity ownership for executives are linked to the improvements in subsequent firm performance. Research on this area generally finds that there is mixed evidence of the significant relation between ownership structure and firm performance. As stock options and other stock-related compensation vehicles are increasingly adopted in China, we expect a positive relation between managerial ownership and firm performance.

The age of directors is another important factor in corporate governance. Older directors are usually more experienced and more likely to have gained enormous business skills and wisdom. Therefore, we expect that the older the average age of the board members, the better the firm performance will be. Similarly, we conjecture that the differences in educational backgrounds of directors could be a key factor as well. It is understandable that well-educated directors can fulfill their duties better than less educated directors. In this study, we consider a director having a bachelor's degree (or higher) to be well educated. It is expected that a director with a bachelor's degree or higher are more beneficial to the firm than those without college diplomas.

The next key variable examined is executive compensation. Some research (Coughlan and Schmidt, 1985; Jensen and Murphy, 1990) on the area of executive compensation have dealt with the issue of the relation between executive compensation and firm performance. Those papers show that firm performance is largely and positively related to pay-performance sensitivity after controlling for risk. For Chinese firms, the relation between executive compensation and firm performance remains undetermined. We conjecture that higher compensation could motivate the management to deliver better firm performance.

The traditional perspective on the board of directors is in favor of independent directors as more independent directors in the board are expected to be able to monitor the management more effectively. According to the selecting procedures for independent directors in China, the independent directors are actually "outside directors." Huang, Xu, and Yue (2006) do not find a significant relation between the proportion of independent directors and firm performance for Chinese public firms. Fama and Jensen (1983) argue that outside directors have an incentive to act as conscientious monitors for the management because they want to protect their reputation. Similarly, Weisbach (1988) finds that boards dominated by outsiders are more likely to replace the CEOs than insider-dominated boards. Empirical evidence finds that firm performance is linked to board composition (Brickley and James, 1987; Byrd and Hickman, 1992; and Rosenstein and Wyatt, 1990), and these studies consistently find that firm performance is superior when outside directors hold a significant percentage of board seats. Therefore, we believe that more independent directors in the board serve the firm better than the case where independent directors are fewer.

In China, it is of importance to investigate the backgrounds of incumbent directors to find the most suitable candidates for independent directors. We investigate whether independent directors have accounting expertise or are hired from academia, and examine the relation between these two characteristics and firm performance. As hiring independent directors from academia has become a routine practice in China, we accordingly purport to measure the efficiency of hiring independent directors from academia. In addition, accounting skills would furnish independent directors with the expertise to analyze financial reports or monitor the financial decision-making of the firm. Moreover, the independent directors selected from academia should also have necessary skills to comprehend the routine business operations of the firm they serve. The academic fields of these independent directors are normally related to the lines of business of the hiring firm. Kroszner and Strahan (2001) find that having bankers on board can play the role of monitors, and the major reason is that the bankers have the expertise and skills in understanding the business and monitoring the CEO's performance. We follow the same line of thought here. However, the tricky part is that these independent directors hired from academia may grasp the theoretical part of business and financial management, but not necessarily understand the practical side of business operations. Whether the academic backgrounds of independent directors can bring benefits to the firm is an empirical issue. Nevertheless, it is commonsense that with finance and accounting skills the independent directors could better understand the detailed financial situation of the firm, and help monitor and advise the management, this is reasonably an advantage. We expect more independent directors with accounting skills will strengthen the firm performance.

4. Empirical methods and results

4.1 Descriptive statistics

Since we examine the board structures of SOE firms and private firms, respectively, we firstly compare their board characteristics. Subsequently, we use the ordinary least squares (OLS) regression model to test the relation between these governance variables and financial performance. Table 2 contains the summary statistics for Q values of sample firms according to industry classifications and distribution over time. The descriptive statistics in Panel A show that sample firms cover almost all industries, and the mean Q values range from 1.409 for ferrous metal industry to 2.908 for information services industry. The descriptive statistics in Panel B indicate that the mean Q value in 2007 was significantly higher than those in the previous two years, and this trend matches the changes in market values of listed stocks over the same period.

--------------------- *Insert Table 2 Here* ------------------------------

Table 3 presents the descriptive statistics of board and firm characteristics.

--------------------- *Insert Table 3 Here* ------------------------

The statistics for combined sample firms, i.e., private and SOE firms, are displayed in Table 3. Tobin's Qs are 2.05 and 2.32 for SOE firms and private firms, respectively. In addition, SOE firms are larger in size than private firms. The board of SOE firms on average has 10.1 directors, compared to about 9.3 directors for private firms. The board meeting frequency is 8.35 times a year for SOE firms and about nine times a year for private firms. With respect to the proportion of independent directors, SOE firms and private firms are quite close, 34% versus 35%, respectively. Regarding duality, 10% of the board Chairs of SOE firms are also the CEOs while this statistics reaches 17% for private firms. Average managerial shareholding value is 54.1 million for SOE firms whereas it is much larger for private firms, 853.3 million. The proportion of independent directors who have accounting skills is 34.5% for SOE firms versus 35.5% for private firms. The percentage of independent directors who have academic background is 50.3% for SOE firms and 48% for private firms. The percentage of directors who have a bachelor's degree or higher is 87% for SOE firms versus 83% for private firms. Meanwhile, the average compensation for directors of SOE firms is 81,443 versus 64,257 for private firms.

Subsequently, Table 4 provides the correlation coefficients for all independent variables, and the results show that there are not many high correlations among the independent variables. Thus, multicollinearity is not an issue in this study. Table 5 reports the univariate comparison analysis between SOE firms and private firms in terms of board and firm characteristics. Results show that private firms have better financial performance than do SOE firms as shown by the higher Q value of private firms with t-statistic of -5.041. This result is consistent with prior empirical findings. The SOE firms have a larger board of directors than do private firms (with t-statistic of 8.095), and SOE firms are also larger in size than private firms (with t-statistic of 4.346). However, the frequency of board meetings is significantly higher in private firms than in SOE firms. The proportion of independent directors in the board is also significantly higher for private firms than that for SOE firms. Whether this implies that independent directors play a more important role in private firms than in public firms will be examined later. As to the measure for duality, the Chairperson is more likely to hold the CEO position in private firms (with t-statistic of -4.89). As conjectured, the founder of a private firm often acts as the Chair of the board even after going public, and he or she usually still maintains the control over routine operations. The value of managerial shareholding is significantly higher for private firms than that for SOE firms, and this is consistent with the practice in China as private firms are more likely to align the interests of shareholders with that of management by offering high stock ownership to the management.

Regarding the proportion of independent directors who have accounting skills, we find that this measure for private firms is not significantly different from that for SOE firms. However, the proportion of independent directors hired from academia for SOE firms is marginally higher than that for private firms (with t-statistic of 1.821). The average age of directors of SOE firms is significantly higher than that of private firms. Meanwhile, the percentage of board members who have obtained university diplomas is 85.6% for private firms versus 86.6% for SOE firms, and the difference is significant, suggesting that SOE firms' directors have better educational backgrounds. Moreover, executive compensation is significantly higher for SOE firms than for private firms, which is consistent with current remuneration systems in China.

Overall, the findings indicate that private firms are materially different from SOE firms in most of the board and firm characteristics. The private firms enjoy higher management efficiency since the results suggest that they have more favorable Q, board size, board meeting frequency, and independent director ratio relative to the SOE firms. The comparison results for other characteristics, such as duality, managerial shareholding, the proportion of directors hired from academia, average age of directors, and educational backgrounds of directors, should be interpreted more cautiously because whether a higher score is better or vice versa in terms of corporate governance efficiency is an empirical question, and previous studies on these variables provided very mixed conclusions.

4.2 Multivariate analysis

We harness the fixed effects regression technique to test the relation between firm performance (Q) and the board and firm characteristics. Here Q is the dependent variable and the board and firm characteristics are independent variables. The model used is as follows:

$$Q_{it} = ln\_asset_{it} + ln\_meeting_{it} + duality_{it} + top\_value_{it} + board\_size_{it} + indep\_ratio_{it} + private_{it} + accountant_{it} + academic_{it} + av\_age_{it} + av\_edu_{it} + T3m\_comp_{it} + \varepsilon_{it}$$

One of our objectives is to find the differences in board characteristics between these two types of firms and ascertain the determinants of their board compositions. Hence, we run three regressions for the whole sample, private firms sample, and SOE firms sample, respectively. The estimated regression results for the three sample groups are presented in Table 6.

----------------------------*Insert Table 6 Here*-------------------------

Regression results for the whole sample are presented in first column. The estimated coefficient on the dummy variable “private” is significant at 1% level, and this result reveals that private firms outperform public firms. This finding substantiates our conjecture. Higher board meeting frequency is positively related to firm performance, meaning that if the board meets more often, it benefits the firm by enhancing financial performance. The coefficient on managerial shareholding value is positive and significant at 1% level. Accordingly, enlarging the management shareholding could lead to the firm performing better, and this is consistent with the traditional finding on managerial ownership. Surprisingly, the coefficient on board size is not significant, implying that board size is unrelated to the firm’s financial performance. The average age of board members is positively and significantly related to firm performance. This somehow confirms that older directors bring more benefits to the firm, and it should be ascribed to the experiences of these older directors. The estimated coefficient on the proportion of directors with a college degree of higher is positive and significant, thus confirming our conjecture that more education of directors is favorable to the firm, which is also in line with prior empirical results (Fan, Wong, and Zhang, 2007).

As expected, executive compensation is positively and significantly related to Q. Higher compensation indeed would motivate the executives to deliver better performance.

The regression results for private firms and SOE firms are displayed in columns two and three, respectively. The regression results in column two essentially remain the same as those in column one, except that the variable “academic” now has a significant and negative coefficient. This implies that hiring independent directors from academia actually do a disservice to a private firm’s performance. The “academic” directors might be too concept/theory oriented while insufficient in interpersonal and practical skills or real-time business trainings.

The regression results for SOE firms in column three are obviously different from those for private firms. First, firm size is significantly and positively related to firm performance, meaning that large firms on average perform better than small firms. Large SOE firms in China often enjoy helps or supports from the government in a variety of ways (Fan, Wong, and Zhang, 2007). Besides, since the large SOE firms are often more important to the Chinese economy because they usually operate in the so-called “pillar industries” such as high-tech and national defense, they are naturally more likely to show stronger performance. Subsequently, duality now has a positive and significant coefficient, and this suggests that the Chairperson holding the CEO position actually benefits the SOE firm. In contrast, for private firms, duality is not related to firm performance. For the SOE firms, when the Chairperson holds the dual seats, the friction between the Chair and the CEO is mitigated. The CEO and the Chair usually do not have the same background, and it is not uncommon that both of them do not have much experience in leading a corporation. In addition, in the case of SOE firms, both positions are usually appointed by government agencies. On the contrary, a private firm’s Chairperson and CEO are factually selected and appointed by the firm’s shareholders, and therefore the process is barely intervened by the government. Next, it is also interesting that the coefficient on the variable “accountant” is significantly positive for the case of SOE firms. We understand that if the hired independent directors are proficient in accounting, the acumen can greatly facilitate the directors’ monitoring tasks since the skills will provide them with a useful weapon in comprehending the financial circumstances and decision-making of the firm (Fan, Wong and Zhang, 2007).

If we compare the results between columns two and three, we find that selecting directors who have accounting skills by private firms does not bring any benefit to the financial performance. Even worse, independent directors hired from academia are counterproductive to the firm. Conversely, for an SOE firm, hiring independent directors who have accounting skills is beneficial to the firm, whereas appointing independent directors from academia does not hurt. Overall, the interesting findings on the dummy variables “accountant” and “academic” merit a thorough analysis. It seems that independent directors who either have accounting background or are hired from academia will generate different outcomes for the firm's financial performance, depending on whether the firm had been a pure private firm or an SOE firm before they went public.

---------------------------------*Insert Table 7 Here*---

We also conduct robustness checks on our findings by running regressions with control sample. We build the control sample in the following way. We use the original private firms sample as the benchmark to gather the matched SOE firms sample. For each firm in the private firms sample, we select one matching SOE firm. We impose two requirements here. First, this SOE firm must be in the same industry as the private firm. Second, the size of this SOE firm must be as close to the size of the private firm as possible. For those private firms that are outliers in terms of size, which are usually too small to obtain matching SOE firms, we drop them from the private firms sample. After the selection process, we obtain the matched SOE firms sample consisting of 731 firms. The regression results using the matched sample are presented in Table 7. Most regression results using the control sample remain consistent with the results shown in Table 6. However, there are some distinctions. For example, firm size now has significant coefficients in all three columns. For the private firms sample, the coefficient on firm size is positively and significantly related to Q, meaning that after we get rid of those small private firms (about 114 firms) from the original private firms sample, we find that larger private firms indeed perform better than small private firms. However, for the matched SOE firms sample, the coefficient on firm size is negative and significant, thus showing that firm size is inversely related to firm performance. Interestingly, the coefficient on variable "academic" is different from the result in Table 6. This variable coefficient is now positive and significant. For SOE firms in the control sample, which comprises relatively small SOE firms, the independent directors hired from academia are beneficial to the firm. This implies that for large SOE firms, having independent directors from academia does not affect firm performance, while for small SOE firms, the presence of those "academic" directors brings a positive impact. The regression results with respect to other variables remain the same as those in Table 6. In summary, the regression results using the control sample confirms one important and robust finding: for private firms, hiring independent directors from academia hurts the firm's financial performance, but SOE firms benefit from hiring independent directors with accounting background as well as from academia.

Why is the relation between firm performance and independent directors' backgrounds inconsistent between SOE and private firms? One possible reason is that SOE firms are larger, more pivotal to the Chinese national economy, have more resources, and also get more supports from the government. Accordingly, more competent and qualified candidates for independent directors who are from academia or with accounting skills prefer SOE firms to private firms. Another possible rationale is that private firms are just careless when selecting independent directors, and those independent directors hired from academia are perfunctory when fulfilling their duties. As a whole, the regression results reveal that SOE firms have done a better job in selecting independent directors with accounting skills and do not suffer any loss from hiring independent directors from academia; on the other hand, private firms are counterproductive in appointing independent directors from academia. Therefore, we could infer that SOE firms in China are relatively superior to private firms in many aspects, which give them an edge in selecting quality independent directors. Private firms simply do not have the same resources, connections, and social influence as do the SOE firms in China. Nevertheless, we should not exclude the possibility that the founders of private firms intentionally hire incapable independent directors to maintain their dominance and control over the firms, and essentially just keep the independent directors as dummies. This is another empirical issue that should be investigated in future research.

5. Conclusion

The primary findings of this paper show that listed companies in China originated from either private firms or SOE firms before they went public have different corporate governance and financial characteristics. For example, compared to private firms, SOE firms have a larger board, less board meeting frequency, lower proportion of independent directors in the board, and lower managerial ownership. Furthermore, SOE firms appoint more independent directors from academia than do private firms, and the Chairperson is less likely to be the CEO. In addition, the average age of directors of SOE firms is higher than that of private firms, and the educational level of SOE firms' directors is on average higher. In general, we find that the relation between firm performance and board and firm characteristics are fairly consistent over these two types of firms, except for two characteristics about independent directors. Specifically, for a private firm, hiring independent directors from academia hurts the firm's financial performance while the appointment of independent directors from academia does not harm the SOE firm's performance. Meanwhile, hiring independent directors who have accounting skills is beneficial to an SOE firm's performance whereas for a private firm, its financial performance is unaffected even when it hires independent directors with accounting skills. This finding enlightens us that private firms in China should be more perceptive in selecting independent directors from academia. Clearly, SOE firms have done a better job in hiring independent directors with accounting skills and do not suffer any loss from hiring independent directors from academia. On the other hand, private firms are counterproductive in appointing independent directors from academia.

To conclude, the contribution of this paper is to shed light on the differences in corporate governance between private firms and SOE firms after they have become listed firms in China. More attention should be paid to the selection procedures for independent directors for both private firms and SOE firms in China.

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Table 1 Variable Definitions

This table describes the definition of each variable used in this paper.

Variable	Definition
Q	A measure of Tobin's Q, book value of total debt plus market value of total equity, divided by the book value of total assets. We drop sample firms with Q > 10 or Q < 0.3
Asset	Book value of total assets, in million
Private	Dummy variable, equals one if the listed firm has private controlling shareholder(s), zero if the controlling shareholder is the state
board_size	Number of board members, we use the natural log in the regression models
meeting	Number of board meetings held in the corresponding fiscal year, log transformed in regression models
indep_ratio	Number of independent board members divided by board size
Duality	Dummy variable, equals one if the Chairperson of the board is also the CEO of the firm
top_value	Market value of shares outstanding held by top managers and board members, measured in 100,000. We use log transformation in regression analysis
accountant	Percentage of independent directors who have accounting background
academic	Percentage of independent directors who are academics
av_age	Average age of the board members
av_edu	Percentage of the board members who have college education or higher
t3m_comp	The sum of the highest three compensations of executives, we use log transformation in regression models

Table 2 Values of Qs across Industries and Years

This table reports the values of Qs for all sample firms, and these sample firms have been categorized into subsamples according to industry classifications and distributions over time.

Panel A: Across industries

Industry	Sample size	Mean	Median	Std. Dev.
Mining	74	2.426	1.716	1.548
Restaurant & Food Services, Tourism	55	2.747	2.492	1.634
Electronics/Semiconductor/IC	95	2.095	1.643	1.326
Real Estate	273	2.314	1.752	1.585
Clothing and Garment	99	1.807	1.548	1.162
Ferrous Metal	85	1.409	1.110	0.586
Chemical	329	2.019	1.525	1.298
Machinery	267	2.155	1.692	1.284
Home Appliances	59	1.587	1.246	0.883
Construction materials	151	1.699	1.328	0.894
Transportation	157	2.031	1.630	1.032
Transportation equipment	166	2.133	1.694	1.396
Agriculture/Fishing/Forestry	104	2.065	1.458	1.430
Light Industry	85	1.911	1.471	1.333
Trading, wholesale and retail	183	1.990	1.644	1.089
Food & Beverage	112	2.481	2.058	1.505
Information Service	103	2.908	2.354	1.751
Telecom & Network Equipment	98	2.151	1.741	1.192
Pharmaceuticals/Biotechnology	287	2.204	1.698	1.451
Nonferrous Metal	103	2.360	1.792	1.588
Conglomerates	134	2.125	1.573	1.483
Total	3019	2.124	1.638	1.367

Panel B: Across years

Year	Sample	Mean	Median	Std. Dev.
2005	994	1.366	1.202	0.627
2006	1025	1.790	1.485	0.974
2007	1000	3.220	2.797	1.546
Total	3019	2.124	1.638	1.367

Table 3 Descriptive Statistics

This table presents the descriptive statistics for all board and firm characteristics. Q is the book value of total debt plus the market value of total equity, divided by the book value of total assets. Asset is the book value of total assets. Private is a dummy variable which equals 1 if the listed firm has private controlling shareholder(s) and 0 if the controlling shareholder is the state. Board_size is the number of board members, and we use the natural log in the regression models. Meeting is the number of board meetings held in the corresponding fiscal year, log transformation is used in regression models. Indep_ratio is the number of independent directors divided by board size. Duality is a dummy variable which equals 1 if the Chairperson of the board is also the CEO of the firm, and 0 otherwise. Top_value is the market value of shares outstanding held by top managers and board members, measured in 100,000, and we use log transformation in regression analysis. Accountant is the percentage of independent directors who have accounting background. Academic is the percentage of independent directors who are academics. Av_age is the average age of the board members. Av_edu is the percentage of the board members who have college education or higher. T3m_comp is the sum of the highest three compensations of executives, we use log transformation in regression models.

	Variables	Sample	Mean	Sdt. Dev.	Min	Median	Max
SOE	Q	2174	2.046	1.277	0.668	1.605	9.588
	asset	2174	5979.23	26407.49	107.88	2191.62	718572
	board_size	2174	10.093	2.503	4	9	30
	meeting	2174	8.349	3.445	3	8	36
	indep_ratio	2174	0.344	0.046	0.083	0.333	0.571
	duality	2174	0.103	0.305	0	0	1
	top_value	2174	541.40	8539.84	0	8.41	360555
	accountant	2174	0.345	0.165	0	0.333	1
	academic	2174	0.503	0.316	0	0.500	1
	av_age	2174	50.011	3.586	36	50.095	63.222
	av_edu	2174	0.866	0.142	0.143	0.889	1
	t3m_comp	2174	81.443	85.419	2.690	61.185	1412
Private	Q	845	2.324	1.558	0.742	1.741	9.824
	asset	845	2024.295	2368.171	107.316	1298.276	35344
	board_size	845	9.301	2.177	5	9	25
	meeting	845	8.994	3.755	3	8	35
	indep_ratio	845	0.351	0.050	0.111	0.333	0.600
	duality	845	0.168	0.374	0	0	1
	top_value	845	8523.69	52670.10	0	3.76	1062950
	accountant	845	0.355	0.165	0	0.333	1
	academic	845	0.480	0.332	0	0.500	1
	av_age	845	47.507	3.732	38.250	47.111	61.556
	av_edu	845	0.829	0.172	0.111	0.889	1
	t3m_comp	845	64.257	63.066	2.400	45.800	537.880

	Variables	Sample	Mean	Sdt. Dev.	Min	Median	Max
Total	Q	3019	2.124	1.367	0.668	1.638	9.824
	asset	3019	4872.265	22512.82	107.316	1884.953	718572
	private	3019	0.280	0.449	0	0	1
	board_size	3019	9.871	2.442	4	9	30
	meeting	3019	8.529	3.546	3	8	36
	indep_ratio	3019	0.346	0.047	0.083	0.333	0.600
	duality	3019	0.122	0.327	0	0	1
	top_value	3019	2775.60	29002.75	0	7.07	1062950
	accountant	3019	0.347	0.165	0	0.333	1
	academic	3019	0.497	0.321	0	0.500	1
	av_age	3019	49.310	3.797	36	49.364	63.222
	av_edu	3019	0.856	0.152	0.111	0.889	1
	t3m_comp	3019	76.633	80.158	2.400	56.720	1412

Table 4 Sample Correlations (the measure is log transformed if needed)

This table shows the Pearson correlations of the 12 variables used in this study. Q is the book value of total debt plus the market value of total equity, divided by the book value of total assets. Asset is the book value of total assets. Private is a dummy variable which equals 1 if the listed firm has private controlling shareholder(s) and 0 if the controlling shareholder is the state. Board_size is the number of board members, and we use the natural log in the regression models. Meeting is the number of board meetings held in the corresponding fiscal year, log transformation is used in regression models. Indep_ratio is the number of independent directors divided by board size. Duality is a dummy variable which equals 1 if the Chairperson of the board is also the CEO of the firm, and 0 otherwise. Top_value is the market value of shares outstanding held by top managers and board members, measured in 100,000, and we use log transformation in regression analysis. Accountant is the percentage of independent directors who have accounting background. Academic is the percentage of independent directors who are academics. Av_age is the average age of the board members. Av_edu is the percentage of the board members who have college education or higher. T3m_comp is the sum of the highest three compensations of executives, we use log transformation in regression models. * indicates significance at 5% level.

	Q	ln_asset	private	board_size	ln_meeting	indep_ratio	duality	top_value	accountant	academic	av_age	av_edu
ln_asset	-0.2037*	1										
private	0.0914*	-0.2445*	1									
board_size	-0.0619*	0.2005*	-0.1558*	1								
ln_meeting	0.1542*	0.1151*	0.0908*	-0.0269	1							
indep_ratio	0.0795*	0.0253	0.0671*	-0.1730*	0.0673*	1						
duality	0.0490*	-0.0665*	0.0887*	-0.0818*	-0.0224	0.0368*	1					
top_value	0.0625*	0.1879*	0.0675*	0.0014	0.0332	0.0260	0.0258	1				
accountant	0.0326	-0.1232*	0.0283	-0.2259*	0.0090	-0.0344	0.0259	-0.0282	1			
academic	-0.0145	0.0426*	-0.0331	0.0161	0.0047	-0.0258	-0.0350	0.0524*	-0.0990*	1		
av_age	-0.0386*	0.3013*	-0.3000*	0.0526*	-0.0960*	0.0420*	-0.0099	0.0978*	-0.1161*	0.0185	1	
av_edu	0.1080*	0.0877*	-0.1085*	0.0339	0.0576*	0.0510*	-0.0049	-0.0309	-0.0786*	0.1693*	-0.1234*	1
t3m_comp	0.1025*	0.4439*	-0.1272*	0.1081*	0.1623*	0.0384*	-0.0134	0.2822*	-0.0714*	0.1138*	0.1931*	0.1816*

Table 5 Univariate Results

This table presents the univariate comparison results between private firms and SOE firms in terms of board and firm characteristics. Q is the book value of total debt plus the market value of total equity, divided by the book value of total assets. Asset is the book value of total assets. Private is a dummy variable which equals 1 if the listed firm has private controlling shareholder(s) and 0 if the controlling shareholder is the state. Board_size is the number of board members, and we use the natural log in the regression models. Meeting is the number of board meetings held in the corresponding fiscal year, log transformation is used in regression models. Indep_ratio is the number of independent directors divided by board size. Duality is a dummy variable which equals 1 if the Chairperson of the board is also the CEO of the firm, and 0 otherwise. Top_value is the market value of shares outstanding held by top managers and board members, measured in 100,000, and we use log transformation in regression analysis. Accountant is the percentage of independent directors who have accounting background. Academic is the percentage of independent directors who are academics. Av_age is the average age of the board members. Av_edu is the percentage of the board members who have college education or higher. T3m_comp is the sum of the highest three compensations of executives, we use log transformation in regression models. * indicates significance at 10% level, ** indicates significance at 5% level, *** indicates significance at 1% level.

	Mean of Private	Mean of SOE	t-statistics
Q	2.324	2.046	-5.041***
asset	2024.295	5979.226	4.346***
board_size	9.301	10.093	8.095***
meeting	8.994	8.349	-4.504***
indep_ratio	0.351	0.344	-3.692***
duality	0.168	0.103	-4.890***
top_value	8523.69	541.4	-6.840***
accountant	0.355	0.345	-1.553
academic	0.48	0.503	1.821*
av_age	47.507	50.011	17.028***
av_edu	0.829	0.866	5.993***
t3m_comp	64.257	81.443	5.313***

Table 6 Multivariate Analysis Results

The multivariate analysis results with original private firms sample and original SOE firms sample using the fixed effects model are presented in this table. The dependent variable is Q, which is the book value of total debt plus the market value of total equity, divided by the book value of total assets. Independent variables are as follows. Asset is the book value of total assets. Private is a dummy variable which equals 1 if the listed firm has private controlling shareholder(s) and 0 if the controlling shareholder is the state. Board_size is the number of board members. Meeting is the number of board meetings held in the corresponding fiscal year. Indep_ratio is the number of independent directors divided by board size. Duality is a dummy variable which equals 1 if the Chairperson of the board is also the CEO of the firm, and 0 otherwise. Top_value is the market value of shares outstanding held by top managers and board members, measured in 100,000. Accountant is the percentage of independent directors who have accounting background. Academic is the percentage of independent directors who are academics. Av_age is the average age of the board members. Av_edu is the percentage of the board members who have college education or higher. T3m_comp is the sum of the highest three compensations of executives. The value of t statistics is shown in parentheses. * indicates significance at 10% level, ** indicates significance at 5% level, *** indicates significance at 1% level.

	(1)	(2)	(3)
	whole sample	private sample	SOE sample
ln_asset	0.1483	0.2293	0.1985
	(1.5558)	(1.0581)	(1.9001)*
ln_meeting	0.9630	1.1016	0.8137
	(11.1716)***	(5.4320)***	(8.8011)***
duality	0.1640	-0.2113	0.2790
	(1.3906)	(0.9739)	(1.9182)*
top_value	0.2852	0.2124	0.3783
	(10.7613)***	(4.7726)***	(10.9060)***
board_size	-0.2923	-0.6576	-0.2841
	(1.3135)	(1.3317)	(1.1501)
indep_ratio	3.5786	4.9079	2.6066
	(4.8960)***	(3.0555)***	(3.2577)***
private	0.3132		
	(2.0007)**		
accountant	0.0292	-1.1028	0.6597
	(0.0928)	(1.5513)	(1.9263)*
academic	-0.3261	-1.1318	-0.0190
	(1.6283)	(2.3729)**	(0.0872)
av_age	4.5316	8.1712	2.8816
	(5.6877)***	(4.3650)***	(3.2690)***
av_edu	1.8254	3.0940	1.5757
	(4.1766)***	(3.2544)***	(3.1622)***
Managerial compensation	0.8894	0.9880	0.8943
	(13.4167)***	(7.1693)***	(11.5923)***
Constant	-25.0107	-39.4314	-18.8233
	(7.6900)***	(5.3044)***	(5.1985)***
Observations	3019	845	2174
Number of Firms	1107	351	826
R-squared	0.3420	0.3616	0.3683

Table 7 Multivariate Analysis with Control Sample Firms (Robustness Checks)

The multivariate analysis results with control sample firms using the fixed effects model are presented in this table. The dependent variable is Q, which is the book value of total debt plus the market value of total equity, divided by the book value of total assets. Independent variables are as follows. Asset is the book value of total assets. Private is a dummy variable which equals 1 if the listed firm has private controlling shareholder(s) and 0 if the controlling shareholder is the state. Board_size is the number of board members. Meeting is the number of board meetings held in the corresponding fiscal year. Indep_ratio is the number of independent directors divided by board size. Duality is a dummy variable which equals 1 if the Chairperson of the board is also the CEO of the firm, and 0 otherwise. Top_value is the market value of shares outstanding held by top managers and board members, measured in 100,000. Accountant is the percentage of independent directors who have accounting background. Academic is the percentage of independent directors who are academics. Av_age is the average age of the board members. Av_edu is the percentage of the board members who have college education or higher. T3m_comp is the sum of the highest three compensations of executives. The value of t statistics is shown in parentheses. * indicates significance at 10% level, ** indicates significance at 5% level, *** indicates significance at 1% level.

	(1)	(2)	(3)
	whole sample	private sample	SOE sample
ln_asset	0.2960	0.6069	-0.5362
	(1.8197)*	(2.7229)***	(2.3564)**
ln_meeting	1.0771	0.9884	1.1869
	(7.5425)***	(4.9053)***	(6.6310)***
duality	0.0833	-0.1959	0.4911
	(0.5181)	(0.9064)	(2.0480)**
top_value	0.2702	0.2106	0.8217
	(7.1370)***	(4.6256)***	(9.3242)***
board_size	-0.1598	-0.3330	-0.0308
	(0.4582)	(0.6532)	(0.0739)
indep_ratio	5.7404	5.3089	4.5497
	(4.8690)***	(3.1957)***	(3.1282)***
private	0.6673		
	(2.6559)***		
accountant	0.0850	-0.0414	1.7839
	(0.1538)	(0.0568)	(2.1700)**
academic	-0.2722	-0.8391	1.1730
	(0.7946)	(1.7547)*	(2.6353)***
av_age	6.5930	5.5696	7.6361
	(4.8570)***	(2.8670)***	(3.9235)***
av_edu	2.4208	2.5776	3.1902
	(3.4078)***	(2.7007)***	(2.6791)***
Managerial compensation	0.9950	1.0007	0.8330
	(9.4667)***	(7.1065)***	(5.2319)***
Constant	-36.3559	-33.1558	-36.7842
	(6.7010)***	(4.2500)***	(5.0039)***
Observations	1462	731	731
Number of firms	682	320	385
R-squared	0.4051	0.3990	0.5313

An Empirical Investigation into the Factors Influencing the Adoption of a Social and Collaborative Learning Environment

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Abstract

The advancement in information and communication technologies has significant impacts on people's daily life. The development of Web 2.0 applications changes the way people communicate, interact and develop relationships. The change is catalyzed by the increasing popularity of online social networks, collaboration technologies and the rapid developments in mobile devices. In addition to the use of computers in searching, accessing and sharing information, people are increasing relying on the mobile devices. The same phenomenon happens to students in higher education where they get used to online social networks, collaboration technologies and rely heavily on the mobile devices to access and share information. These developments provide researchers the opportunities to explore and develop new mobile learning strategy. This study attempts to investigate the determinants influencing student intentions for mobile learning with special focus on collaborative learning environments. Various areas are examined, including (1) social technology, (2) Sharing (3) Usability, (4) Subjective norm, (5) Student attitude, (6) Mobility, (7) Interaction, (8) Content, and (9) Intrinsic motivation. The students from the Chinese University of Hong Kong (CUHK) studying in a higher diploma programme are invited to participate in this study. A survey is conducted to examine how these factors affect student intentions for mobile learning in a collaborative learning environment. The results of this study provide evidence and insight about the effects of using mobile learning as part of the pedagogical strategies. The study also tries to explore demographic trends relating to the use of mobile phones in academic related activities. The findings of this study may raise the interest of researchers who are going to explore mobile learning in a social networking and collaborative learning environment.

Keywords: mobile learning, m-learning, collaborative learning environment, collaborative technologies

1 Introduction

The advancement in information and communication technologies has significant influences on human life in terms of information searching and sharing. With the maturity of the Internet and its related technologies, people get used to Internet platforms and increasingly rely on social network and collaboration services available on the Internet (Sultan, 2010). An example is Facebook, a social networking service and website launched in February 2004 (Eldon, 2008). The development of social networking service creates a new paradigm of Internet usage. Facebook is widely adopted by people all round the world and the number of user increases over time (Nathan & Jessica, 2011). According to the 'Facebook Statistics, Stats and Facts for 2011', over 700 billion minutes a month are spent on Facebook, 20 million applications are installed per day and over 250 million people interact with Facebook from outside the official website on a monthly basis, across 2 million websites. The core 18-24 year old segment is now growing at a face pace. People are increasingly using Facebook for communication and social networking. Students are further relying on Facebook in interacting and communicating with classmates and friends and they may spend long hours in the social networking environment (Zhao, Sherri & Jason, 2008). They get adapted to the online environment, and enjoy learning and using the up-to-date technologies (Chang & Guetl, 2010). A common collaborative technology that is provided by the Google Applications Technology (Rienzo & Han, 2009) consists of a set of tools to facilitate collaborative tasks, which includes the functions of traditional office applications and common space for sharing. The three main functions, provided by Google applications that facilitate collaboration, are Google Docs, Google Forms, and Google Sites. Google Docs technology is a common platform for sharing documents in Google accounts. Google Forms provide spreadsheet facilities that can be used for developing online forms and surveys. Google Sites facilitate the development of Web sites for collaborative work, handling documents, managing updates and wikis, and hosting forums for discussions (Cheung & Vogel, 2012). Meanwhile, the rapid development of the mobile technology including the mobile devices, for example, mobile phones and touch pads, speed up the adoption and popularity of these technologies. From a pedagogical perspective, researchers are interested in addressing the following question: "Can these social and collaborative technologies and mobile devices be incorporated as part of the pedagogical strategies in form of mobile learning?"

2 Past Literatures and hypotheses development

2.1 Online social interaction and student learning

A number of studies have investigated social networking technologies for student learning. For example, some teachers are trying to make use of Facebook together with online learning platforms (Mazer, Murphy & Simonds, 2007). Besides achieving student learning outcomes and improving student learning satisfaction, student engagement plays an important role in learning (Gray & Daymond, 2010). There are studies investigating various areas on Facebook including social benefits (Ellison, Steinfield & Lampe, 2007; Zhao, Sherri & Jason, 2008; Adam, 2008; Morris & Millen, 2007), student perception on various social aspects (Special & Li-Barber, 2012; DeSchryver, Mishra, Koehleer, & Francis, 2009; Hewitt & Forte, 2007), investigation of student learning attitudes and social relationship (Mazer, Murphy & Simonds, 2007). There are also theoretical models relating the teacher-student relationships, convenience of technology, student attitudes and student engagement in learning (Lam, 2012; Lau et al, 2012, Lau et al, 2010). Therefore, the following hypothesis is proposed for this study:

Hypothesis 1. The social technology will positively influence student intention for mobile learning in a collaborative learning environment.

2.2 Technology acceptance and behavioral intention

There are several competing theoretical models that can be used to investigate the determinants that affect the acceptance of information technologies (Venkatesh, Morris, Davis, & Davis, 2003), for example, the collaborative technologies. The theoretical models employed to study user acceptance and behavior include the theory of reasoned action (TRA) (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975) and the theory of planned behavior (TPB) (Ajzen, 1991; Mathieson, 1991), as well as the technology acceptance model (TAM) (Davis, 1989; Davis, Bagozzi, & Warshaw, 1989). A number of studies have used both the original and extended version of TAM to explore students' acceptance of virtual learning environments, including the perceived access to technical support also positively influences perceived ease of use and usefulness (Ngai et al., 2007); the compatibility (Karahanna et al., 2006), computer self-efficacy (Gong, et al., 2004; Ong, et al., 2004), the perceived affective quality (Manuel and Sanchez-Franco, 2009). Based on TAM, TRA and TPB, Cheung & Vogel (2012) proposed a research framework which is an enhanced TAM. This framework includes a number of factors namely, the perceived usefulness, perceived ease of use, perceived resource, compatibility, sharing, attitude, subjective norm, self-efficacy. These factors have different influences on student learning attitude, and the subsequent behavioral intention and system usage. Based on the above studies, it is reasonable to hypothesize the following:

Hypothesis 2. The sharing will positively influence student intentions for mobile learning in a collaborative learning environment.

Hypothesis 3. The usability will positively influence student intention for mobile learning in a collaborative learning environment.

Hypothesis 4. The subjective norm will positively influence student intention for mobile learning in a collaborative learning environment.

Hypothesis 5. The student attitude will positively influence student intention for mobile learning in a collaborative learning environment.

The research findings using an enhanced version of TAM will provide insights on the various factors affecting student behavioral intention on the use of collaborative learning technologies. In addition to the use of the TAM model, this study will also investigate the motivation factors. According to Deci, there are two broad classes of motivation, namely, intrinsic and extrinsic motivations (Deci, 1975). Extrinsic motivation means that the result of the activity links to the rewards that are different from the activity itself (zhang sheng et al., 2008). Intrinsic motivation means that the result of an activity does not have any reinforcement behind (Davis et al., 1992). Previous literature also confirms that intrinsic motivation, in form of enjoyment, can influence individuals' IT acceptance behavior (Davis et al., 1992; Heijden, 2003; Atkinson & Kydd, 1997; Venkatesh & Speier, 1999; Venkatesh & Speier, 2002). Intrinsic motivation is investigated as an antecedent of mobile learning in a collaborative learning environment (zhang sheng et al., 2008). Therefore, the following hypothesis is proposed:

Hypothesis 6. The intrinsic motivation will positively influence student intention for mobile learning in a collaborative learning environment.

2.3 Mobile learning

There are various studies that investigated mobile learning in an academic environment. Chen et al. (2006) found that the use of mobile devices can improve the academic performance, task accomplishment rates, and learning goals achievement rates. Motiwalla (2007) proposed a mobile learning framework for developing mobile learning applications. Rau et al. (2007) argued that two factors should be considered while using mobile communication in higher education, i.e. motivation and pressure, which may affect the learning performance of students. Uzunboylu et al. (2009) proved that the integration of mobile technologies, data services, and multimedia messaging systems can help increase student use of mobile technologies and develop environmental awareness. The study conducted by Evans (2007) showed that the use of mobile learning in the form of podcast can facilitate student learning in a mobile learning environment. Researchers have proposed theoretical framework or model explaining the phenomenon or predicting the student learning behavior. Sharples et al. (2005) pointed out that there are a number of steps in postulating a theory for mobile learning. The first step is the differentiation between the differences between mobile learning and other types of learning activity. The second step is to ensure that learning happens outside classrooms, offices and lecture halls. The third step is based on contemporary accounts of successful learning practices, including learner centered, knowledge centered, assessment centered and community centered. Finally, the theory of mobile learning must make use of ubiquitous and shared technologies. As a possible explanation of the adoption of mobile learning in a collaborative learning environment, the following hypothesis is proposed:

Hypothesis 7. The mobility will positively influence student intention for mobile learning in a collaborative learning environment.

A number of studies have proposed theoretical frameworks for mobile learning. One example is the FRAME model proposed by Koole (2006). In the FRAME model, the mobile learning environment is represented by a Venn diagram, where three aspects intersect, i.e. the Device, Learner and Social Aspects. Two of these three aspects overlap to form the Device Usability, Social Technology and Interaction Learning aspects. Mobile learning experience is where the three circles overlap (Koole, 2006). Based on the research from Koole, we propose the following hypothesis for this study:

Hypothesis 8. The interaction will positively influence student intention for mobile learning in a collaborative learning environment.

Luvai (2007) also proposed a mobile learning framework, which has two dimensions, namely, the PUSH/PULL mechanism and Personalized/Collaborative Content. Based on the framework from Luvai, there are four possible e-learning methods and approaches incorporated into a mobile learning environment. As content is one of the important elements of mobile learning, the following hypothesis is proposed:

Hypothesis 9. The content will positively influence student intention for mobile learning in a collaborative learning environment.

Figure 1 shows the factors influencing mobile learning in collaborative learning environment.

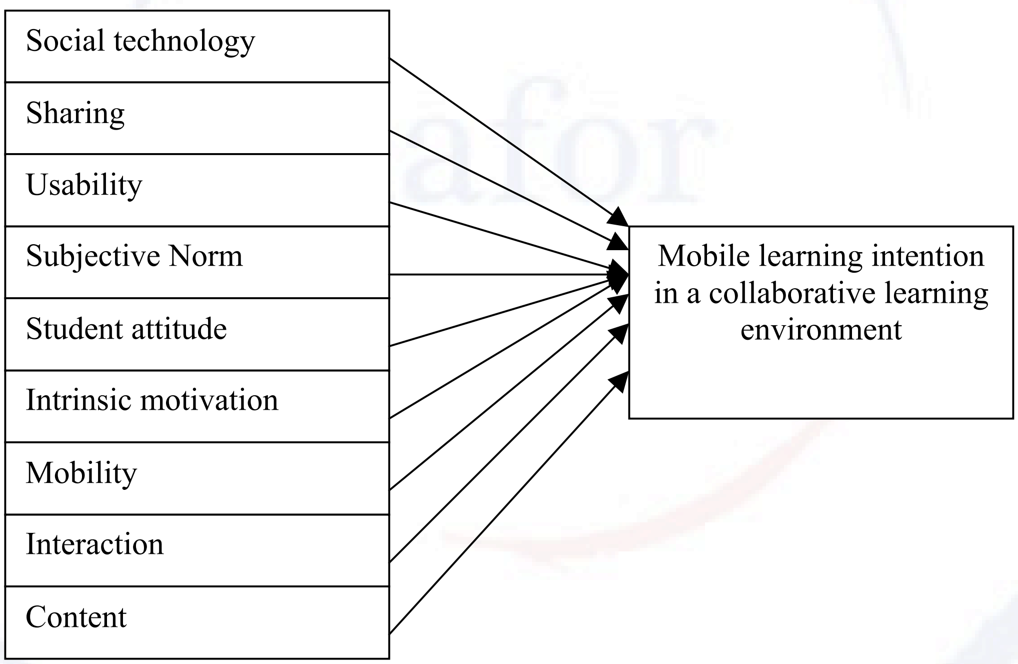

Figure 1: The proposed theoretical model

3 The research question

In this study, we attempt to investigate the factors influencing the student intentions for mobile learning in a social and collaborative learning environment. Therefore, the following research question is proposed for this study:

What are factors influencing student intentions for participating in mobile learning in a social and collaborative learning environment?

4 Research methodology

4.1 Measurement development and pilot test

We shall conduct a number of in-depth interviews with students from the Chinese University of Hong Kong (CUHK) to examine the validity and reliability of our research model. The student questionnaire will be developed based on the survey instruments from the literature and feedback from the interviewees. The questionnaire will be revised by CUHK lecturers with significant experiences in mobile learning pedagogical strategy. The questionnaire contains 7-point Likert scale questions ranging from [1] strongly disagree to [7] strongly agree. A pilot test of the instruments will be conducted with 20 students of a higher dimploma programme, where they will be required to use the mobile learning application throughout the entire semester (15 weeks). The items in the questionnaire will be modified subsequently based on the feedback from the pilot test respondents.

4.2 The course arrangement

Four classes of the higher diploma students from CUHK (with a total of 100 students) will be arranged to use the mobile application for learning during the entire semester (15 weeks). Students are required to work collaboratively in groups to complete a group project. They are required to make use of the mobile application through communication, discussion, information sharing through the Google-based cloud space.

4.3 Data collection

The data will be collected from the CUHK higher diploma students. Surveys will be distributed at the end of the semester. The sampling method is convenient sampling where the students participated in the study are required to read and sign the survey consent form, which provides details on the purpose of survey, together with the benefits and risks of participating in the survey.

5 Summary

Information and communication technologies are increasingly influencing people's daily life and is playing an important role in learning. The trend for these developments as well as the mode of learning from traditional to e-learning and subsequent mobile learning is unavoidable (Luvai, 2007). Therefore, it is necessary to explore these challenges and explore the ways to make good use of these technologies to facilitate student learning. The findings of this study will raise the interest of researchers who are going to explore mobile learning in a social networking and collaborative learning environment.

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The Challenges for Thailand as an emerging donor for Infrastructure Development

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Abstract

The rapid development in Thailand whereas neighboring countries still confronted several problems of economic development and poverty caused the greater disparities in social and economic development. These have significant impacts on security and prosperity of the sub-region. As a result, The Neighboring countries Economic Development Cooperation Agency(Public Organization) or NEDA was established in 2005 under the Royal Decree. Its main mission is to promote sustainable development, enhance competitiveness, reduce poverty and improve living condition in the region. NEDA will take action in accordance with the criteria for prioritization of financial and technical assistance projects, by emphasizing infrastructure projects that render mutual benefits to Thailand and the neighboring countries, including those projects under GMS, ACMECS and BIMSTEC schemes that focus on development of transportation networks for greater opportunities in trade, investment and tourism within the sub-region.

This paper focuses on an efficient mechanism of the government to extend Thailand's aid for economic development among neighbors through public organization named NEDA and aims to investigate the mutual benefits and problems that arise in the transportation network projects in the Greater Mekong Subregion (GMS) focusing in Thailand context, challenge for the country to switch its position from the recipient to the donor. It is therefore discuss on history of the country, nature of the government and its development strategies through specific agency named NEDA and the challenge to serve as a partner in economic development.

Statement and Significance of the Study

The emerging of aid agenda in the 1990s and early 2000s has spread its effects globally. The recipient country was hit by loan assistance condition whereas donor country was frequency asked for the purposed of assistance. This pa contributes specific in Thailand context, challenge for the country to switch its position from the recipient to the donor. It is therefore discuss on history of the country, nature of the government and its development strategies.

In Greater Mekong Subregion (GMS), where market forces have been stronger and competitiveness has been accelerating, most donors, in coping with the dynamic environment, have introduced their own corporate policies to complete aid program. Major donors such as Asian Development Bank (ADB), World Bank (WB) Japan Bank for International Cooperation (JBIC) and the People's Republic of China have been extending different form of assistance to Lao PDR, Cambodia, Myanmar and Vietnam. At the same time, Thailand is counted as emerging donor to extend the assistance in infrastructure development to its neighbors. Source of fund is totally come from budget allocation, limited at 2000 million baht per project. NEDA is a public organization established by Thai's government to provide financial and technical assistance to neighboring countries through transportation projects such as road construction, airport improvement and rail link. Beyond any doubts, transportation networks are of significant importance for economic development and provide a considerable improvement in quality of life. The expected benefit of the study is to ensure that the funds are being used in appropriate way to promote mutual benefit not individual interested. The findings of the study can serve as basic information to government policy implementation, make use in terms of refinement of existing policies to enhance the performance of government agent as deemed appropriate.

Establishment of NEDA is part of public management reform, but what is public management reform? The public reform consists of deliberate changes to the structures and processes of public sector organizations with the objective of getting them (in some sense) to run better. (Pollitt and Bouckaert, 2004, p.8) NEDA formerly has known as NEDF or the Neighboring Countries Economic Development Fund established in 1996 as an agency under the Fiscal Policy Office, Ministry of Finance. In order to reconstruct organization which would eventually lead to greater flexibility in its operation, NEDA has been established. The assistances from NEDA could be divided to 2 different areas which are Financial Assistance and Technical Assistance. Financial Assistance, which is in the form of loans, concessional loans and grants whereas Technical Assistance is in the form of feasibility study. (NEDA, 2007)

Research Objectives

1. To identify the country benefits arise from providing financial assistance to Neighboring Countries in infrastructure development projects.
2. To compare assistance condition in infrastructure development between Thailand and other donors.
3. To discusses the Government of Thailand's development strategy, its political and developmental priorities, and how these have been affected by its reliance on external assistance.

Research Question
1. What Thailand can benefit from providing financial assistance to Neighboring Countries in infrastructure development projects?
2. What are the differences between Thailand and other donors focusing on assistance condition in infrastructure development?
3. What are the development policy priorities of the Government of Thailand and to what extent are these framed by the situation of external dependency?

Scope of the Study
The scope of the study can be described in terms of its specific area of focus in the study, the specific organization under study and the specific population of the study as follows:

Specific area - This study focuses on infrastructure development in sub-region (Cambodia, Laos PDR, Myanmar,Vietnam)

Specific organization - The organization under study is The Neighboring countries Economic Development Cooperation Agency (Public Organization) or NEDA, attempting to identify the factors affecting donor's performance.

Specific population - The specific population under study consists of 2 groups those whose jobs are directly related to the providing assistance in infrastructure development to neighboring countries, which are (1) Government Agency (NESDB / TICA / Ministry of Finance and Ministry of Foreign Affairs) (2) Stakeholders (Chamber of Commerce / Contractor / Consultant / External Communities).

As a result, this paper focuses on an efficient mechanism of the government to extend Thailand's aid for economic development among neighbors, mainly investigates on the donor role and the Government of Thailand's development strategy.
Definition of terms
Financial Assistance defined as Loan or Grant
Technical Assistance defined as Feasibility Study or Training
The projects receiving the above mentioned assistance must be projects that promote mutual benefit in the area of social and economic development of the neighboring countries and can be classified as;

- Projects related to trade and investment facilitation
- Projects related to agricultural and industrial cooperation
- Projects related to the promotion of the connection between transportation systems and communication network
- Projects related to tourism and service business promotion
- Projects related to human resource development
- Projects related to urban and land development

The neighboring countries
The neighboring countries under the Royal Decree governing Establishment of the Neighboring Countries Economic Cooperation Agency (NEDA) comprised of Laos PDR, Cambodia, Myanmar and Vietnam. (NEDA, 2007) However, NEDA can also provide assistance to other countries if the cabinet approve. Most of NEDA's projects underline with GMS framework.

GMS or The Greater Mekong Sub region

GMS is an economic area bound together by the Mekong River, covering 2.6 million square kilometers and a combined population of around 326 million. The GMS Program aims at fostering regional cooperation to contribute to growth and poverty reduction and to address the provision of regional public goods. Transportation was identified at the inception of the GMS Program as one of nine areas of sub-regional cooperation. The nine areas covered by the GMS Program are agriculture, energy, environment, human resource development, investment, telecommunications, tourism, trade facilitation, and transport**.** (ADB,2012)

Methodologies

1. Policy analysis and archival work: Focused on public policy documents produced by Thailand and other donors, official policy papers on general aid strategies, country strategy papers on Cambodia, Laos PDR, Myanmar and Vietnam.
2. Semi-structured Interviews: Interested in individual narratives from Government Agency (NEDA / NESDB / TICA / Ministry of Finance and Ministry of Foreign Affairs)
3. Participant observation: Attended conferences and open session seminars on donor-funded government activity, create opportunity to observe the public discourse and the questions being asked, to meet new and established informants, and to hold informal conversations with participants.
4. Cross-Sectional Analytic Studies: Provide the questionnaire for stakeholders those whose jobs are directly related to the providing assistance in infrastructure development to neighboring countries (Chamber of Commerce / Contractor / Consultant / External Communities).

Expected Benefits of the Study

The expected benefits of the study are in terms of academic interest and management practice:
Academic benefit: This study purports to contribute to current debates on aid politics, policy and practice by exploring the dynamics of the aid agenda which emerged in Thailand, focused on infrastructure development.
Management benefit: In view of the expected benefit to management, this study serves as a guideline to make recommendation for management development which contribute to strengthening donor role focusing in sub-region infrastructure development. The findings of the study can serve as basic information to government policy implementation, make use in terms of refinement of existing policies to enhance the performance of government agent as deemed appropriate.
It can thus be seen that part of Thailand's development strategy is related to its neighboring countries and the region. The linkage is achieved via the development of the infrastructure network - transport routes connecting Thailand to its neighbors and the region and the development of logistics to promote the convenience of transportation of goods, services and people within the region. It is such a linkage that contributes to the success of the strategy of linking the Thai economy with that of the region.

Thailand's National Economic and Social Development Plans

NEDA's mission is in line with the Thai government's policy to promote Thailand as a trading hub among the neighboring countries and others in the sub-region. Thailand's 7th - 11th National Economic and Social Development Plans all attach much importance to the development of the sub-region and its rural areas. NEDA has laid down guidelines for developing a regional hub that will function as economic and major employment generation bases to cater to economic growth and activities in the central areas of the sub-region, together with a framework for forging linkages with the neighboring countries.

The policy to foster partnerships with the neighboring countries and sub-region in the Mekong basin was maintained and built on in the 8th National Economic and Social Development Plan (1997-2002) whose 2 goals were set. First is to develop the sub-regions and border areas to strengthen the economy of towns and communities and provide opportunities to the local people. Second is to give emphasis to areas under the Mekong Sub-region Cooperation Program. (The Office of the National Economic and Social Development Board, 2010)

This is particularly evident in the 10th National Economic and Social Development Plan (2007-2011). The strategy to this end is to pursue sustainable economic development with benefits being distributed to all parties concerned. One crucial issue is the promotion of cooperation with countries in GMS, ACMECS, IMT-GT, JDS and BIMSTEC by developing the basic infrastructure through the revision of national and international regulations so as to facilitate cross-border trade, investment, and tourism, together with the monitoring and prevention of social and environmental impacts and human resource development. (The Office of the National Economic and Social Development Board, 2010)

The move is therefore in line with the 11th National Economic and Social Development Plan (2012-2016) whose emphasis is still on fostering economic and social cooperation between Thailand, its neighboring countries and other nations in the Mekong sub-region. The Office of the National Economic and Social Development Board (2010 , p.127) stated that "Thailand needs to adjust its role to cater to changes in terms of expanding cooperation with its strategic partners in areas of economy, trade, communication and transportation, development and transfer of knowhow in the fields of human resources, technology and information technology. Therefore, seeking partnership with other countries in the region in the economic and other areas has become increasingly necessary."

In align with the government policy, Chulanont (2006) said that it was 3 criteria for the country which were (1) promoted friendship and cooperation with neighboring countries, the sub-region, the region and among regions so that there was stability, security and shared prosperity, (2) strengthen ASEAN, especially expediting the establishment of an ASEAN Community and (3) played a constructive role in the framework of the United Nations as well as in other multilateral frameworks in the promotion of peace, democracy, human rights, humanitarianism, environmental conservation, sustainable development, the resolution of transnational problems and public health.

Summary on NEDA Projects

There are many countries extending different kinds of assistance to Lao PDR, Cambodia and Myanmar. NEDA was also extending assistance to its neighbors. In reviewing the NEDA transportation network projects during the past ten years, it was a remarkable 2 projects that Thailand was an important jigsaw of the sub-region.

For Lao PDR, NEDA provided support amounting to 1,385 million baht in the form of loan for the Chiang Rai-Kunming via Lao PDR. Road Improvement Project (Route No.3). The route runs a total distance of 84.77 kilometers from Houisai to Ban Sod. Started in September 2004, the project was completed in February 2008. The construction of this road was undertaken with Thai, Chinese, and ADB financial assistance. Thailand, China and the ADB made equal financial contributions to this project. As part of the transportation route between Thailand and China via Laos, the road runs a total distance of 250 kilometers. (Chulalongkorn University, 2010)

For Cambodia, NEDA provided support amounting to 866.66 million baht in the form of loan for the Koh Kong - Sre Ambel Road Improvement Project (Route No.48). The route runs a total distance of 151.429 kilometers. Started in December 2004, the project was completed in June 2007. Despite the presence of R48, cargo transport via inland waterways remains popular and widely used because it is cheaper and the transportation time is only slightly more than that of road transportation. Moreover, ships may carry goods up to Sihanoukville, the main port city of Cambodia. Alternatively, the goods may be disembarked at Sre Ambel Port, from which it is possible to reach R4 without using R48. However, R48 enables speedy transportation of consumer goods and fruits from Thailand to Phnom Penh. On the other hand, R48 apparently facilitates people transport. This can be seen from the termination of the boat service, and people choose R48 as the only communication route. Indeed, after the construction of R48 and the four bridges on the route, the travel time from Koh Kong to Sre Ambel has been reduced from ten to two hours and a half. (Chulalongkorn University, 2010)

It can thus be seen that part of Thailand’s development strategy is related to its neighboring countries and the region. The linkage is achieved via the development of the infrastructure network - transport routes connecting Thailand to its neighbors and the region and the development of logistics to promote the convenience of transportation of goods, services and people within the region. It is such a linkage that contributes to the success of the strategy of linking the Thai economy with that of the region.

Policy Implementation

Projects must appropriately yield economic, financial, and social benefits for both donor and recipient countries. The data collection would be taken from (1) feasibility study that submitted by Neighboring Countries (2) existing feasibility study from international organization such (3) feasibility study from NEDA’s technical assistance to Neighboring Countries (4) other relevant documents from Thai’s organization.

As the result, the methodology emphasize on two aspects which are;

1. Net Present Value (NPV) was used to generate the benefits in economic growth. The construction of R3 lasted four years (2004-2008) whereas the construction of R48 took three years (2005-2007). It has been calculated to generate benefits for 20 years from 2008 until 2027 by using discount rate of 12 percent to evaluate the projects.
2. The assessment of the project impacts have been undertaken at national, provincial, and village levels by interview and collected statistics data on environmental impacts. At the national level the evaluation has also been aimed to determine whether and/or

how the improvement of R3 and R48 are compatible with Lao PDR and Cambodia's policy.

Results

The construction of the road is in line with the main target of the Mekong sub-regional development as embodied in the ADB's North-South Economic Corridor project. The creation of this economic corridor has been aimed to support three of the five strategies for the Mekong sub-regional development, namely:

1. To strengthen the infrastructural networks in various sectors
2. To facilitate cross-border trade and investment
3. To incorporate the private sector into the development and upgrading of its competitiveness.

The overall goal is to develop the communication system such that it becomes more efficient in circulating people and goods throughout the region without either major obstacles or increases in costs. The upgrading of communication networks will thus promote economic growth and regional development, leading eventually to reduction of poverty in the region. In order to improve the regional communication infrastructure so that it yields highest benefits, the countries in the Greater Mekong Sub-region have opted for a holistic development strategy in the form of economic corridors. Investment in infrastructure includes transportation, energy, telecommunication, and tourism. The focus is on the same areas so that the development efforts become most effective while costs would be kept at the lowest levels. This development strategy emphasizes careful planning and creation of the infrastructure that promotes business opportunities.

Discussion

There are benefits and challenges from the NEDA transportation network projects. Direct benefits are supporting the connection of transportation networks to facilitate trade and investment within the sub-region whereas the challenge is the potential to serve as a partner in economic development. Even the NEDA transportation network projects were used as an importance tool for economic growth, yet transparency and moral are also significance for ensuring mutual benefits. The further research shall focus on applying moral principles to public policy and public officials. Furthermore, public hearing must be considered mainstream public administration. It is important to emphasize on feedback from both side. Indeed, the greatest importance, the research should focus on the specific area of ethical decision making for each project. To strengthen the sub-region competitiveness, the linkages within Mekong sub-region will benefit for both Thais and its Neighbors. It is important to identify factors which affect the performance in order that the agency is enabled to understand its role and responsibility. Identifying the factors affecting performance of agency can serve as a guideline to enhance the agency's ability to improvise appropriate ways and means for performance improvement. The current measurement by Office of the Public Sector Development Commission (OPDC) focuses on the number of completed project but missing the critical perspectives represented by policy implementation theory, management theory and participatory from external communities.

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