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### Table of Contents

12906
*Online Reviews in an E-Commerce Environment: Impact on Brand Trust and Consumer Equity*
Jo Rhodes
Glenn Asano
Peter Lok  
pp. 1 - 16

14284
*The Effect of Work Family Conflict on Employees Job Attitudes and Mediating Role of Organization Citizenship Behavior: A Study of the Banking Sector of Pakistan*
Mohsin Bashir
Sidra Rana
Muhammad Imran Ali  
pp. 17 - 30

14819
*Inventory Management and Firm's Performance During the Period of Financial Constraints: An Empirical Analysis of SME Sector in Greece*
Ioannis Ganas
Alina Hyz  
pp. 31 – 45

15318
*Business Negotiation Power: How is it Used in the Arabian Gulf?*
Alexandre Anatolievich Bachkirov  
pp. 47 – 56

15355
*Multidimensional Performance Measures as Inductors of the Adoption of Best Practices and the Achievement of Projects' Goals*
Tiago Melo
Hugo Roth Cardoso
Pedro Beck Di Bernardi  
pp. 57 - 78

15422
*Case Study on the Business Performance of Suppliers to the Portuguese Health System During the Period of International Financial Assistance*
Ricardo Brito Barros  
pp. 79 – 93

15493
*The Study of Success Career-Life Concordance (Case on Teachers, Lecturers and Nurses in Jakarta)*
Sylvia Diana Purba
Sugeng Wahyudi  
pp. 95 - 116

15694
*Financial Slack and Firm Performance During an Economic Downturn*
Andreas Gruener
Ingeborg Raastad  
pp. 117 – 132

15870
*Prolegomena on Co-Evolution of Internal and External Selection*
Katarzyna Piórkowska
Ewa Stańczyk-Hugiet
Sylwia Stańczyk  
pp. 133- 1 45
15892
*A Novel Business Model Based on Real Time Bidding and Online Video Interaction Technology*
Jiesheng Zhang
Chengyan Feng
Vincent Chang
Jia Tan
Wayne Wu

pp. 147 - 156

16586
Ejionueme Ngozi
Nebo Gerald
Uduji Joseph

pp. 157 - 175

16671
*Narratives About the Need to Develop the Sense of Cooperation of Managers*
Kim Vu

pp. 177 - 188

17164
*Education and Business Management: A Strategic Management Review in Context*
Thi Thu Tra Nguyen

pp. 189 - 202

17677
*Success and Performance: A UK SMES Perspective*
Boran Li
Jake Ansell
Tina Harrison

pp. 203 - 222

17803
*Entrepreneurial Orientation and Survivability of Banks in Nigeria: The Mediating Role of Human Capital Management*
Justin Mgbecchi Odinioha Gabriel
Kpakol, Aborlo Gbaraka

pp. 223 - 237

17925
*What Precedes Flexible Role Orientation?*
Lintang Ayuninggar

pp. 239 - 246

18082
*Antecedents of Top Management Succession and Successor Origins: Evidences from an Emerging Market*
Aylin Ataay

pp. 247 - 261

18092
*Performance Consequences of CEO Succession: The Impacts of CEO Successor Origins and Succession Context*
Aylin Ataay

pp. 263 - 277
Abstract
The aim of this study is to determine the effects of consumer-to-consumer online reviews on the drivers of customer equity (CE) and the role of brand trust. An experimental online forum was purpose-built and a restricted probability sample of 269 participants was drawn from a registered online panel. The research finds: (a) that the valence of consumer-to-consumer online reviews positively affects customer equity; (b) that negative online reviews cause have the highest relative impact on customer equity, and (c) as brand trust increases, the change in the customer equity drivers tend to become more negative.

Keywords: online reviews, customer equity, brand trust
Introduction
The rapid adoption and wide-scale use of Internet-based information is transforming markets around the globe. Internet technologies enable consumers to share their opinions and experiences of using goods and services with a large number of other consumers and potential consumers. When they do this online, they are engaging in a form of ‘electronic’ word of mouth communication referred to as eWOM (Hennig-Thurau et al. 2004). Online reviews (ORs) – the most frequently used form of eWOM communication (Schindler and Bickart 2005) – influence the consumer decision-making process.

Consumers and potential consumers access online reviews to reduce transactional risk, as well as doubts about firms and their offerings, prior to initiating a consumer relationship (Hennig-Thurau and Walsh 2003; Lee and Ma 2012). Consumers now gather and share product and service information amongst themselves is a dramatic change from previous decades. As a consequence of the rising use of eWOM, firms are no longer the sole source of communication about themselves, and are thus at risk of losing control of the messages that consumers and potential consumers receive about their products, services and brands.

That firms now operate in an overall climate of general mistrust by consumers of business and its products exacerbates their difficulties with image control (Lantieri and Chiagouris 2009). According to the 2013 Edelman Trust Barometer, based on a sample of 26,000 respondents representing the global general population, the public’s overall ‘trust in business’ was measured at 58 per cent, which means 42 per cent were rated as ‘not a truster’ (Edelman 2013). This statistic is highly relevant to this study, since consumer banking relationships were the backdrop for this research, and financial services were the least trusted industry globally, with 54 per cent of respondents rating them as not trustworthy.

In response to the crisis in trust and loss of control, some firms have attempted to harness this new communication channel with varying and unreliable results. These responses run the gamut from overwhelming consumers and creating scepticism (Sher and Lee 2009), to outright deception and documented fraud through intentional manipulation of online reviews (Hu et al. 2012; Dellarocas 2006). Hennig-Thurau (2010) concluded that the enormous rise in new media is highly disruptive to the management of relationships with consumers.

The rationale for this study is based on the argument that by adopting the customer equity (CE) perspective when examining the influence of ORs, a firm can improve its marketing productivity over the long-term. This is because, when the influence of ORs is studied for its relative impact on the three drivers of CE, management acquires new insight on the effects that ORs have on the value of its ‘customer asset’ and thus shareholder value (Luo 2009; Tirunillai and Tellis 2012). Many previous studies of OR focus on short-term measures and outcomes such as purchase intent (Cheung and Thadani 2012). This study is different to existing literature because its contribution focuses on the consequential effects that positive and negative ORs have on factors associated with CE, a relatively long-term measure of firm performance.
Research questions
There is an urgent need for management to better understand the impact that ORs have on its consumer relationships and the role of BT, so that they can provide a strategically informed, evidence-based response to the phenomenon. To address this research problem, four specific research questions were posed. First, what is the effect of the valence of ORs on the three observable drivers of CE (value equity, brand equity and relationship equity)? Second, what is the relative impact of the valence of ORs on the three observable drivers of CE? Third, what is the effect of BT on the three observable drivers of CE? And fourth, what is the effect of the valence of ORs on BT?

Conceptual framework
The conceptual framework underpinning this study is shown below (Figure 1). It depicts a composite latent variable model that identifies the constructs and describes the proposed relationships between the independent variable (ORs), the mediating variable (BT) and the dependent variable (CE).

In the context of implementing the online experiment, an additional dependent variable typically referred to as the criterion variable is used. This variable measures the difference between the pre-experimental treatment scores and the post-experimental treatment scores for the three customer equity drivers (CEDs) and are referred to as ‘change scores’.

Customer equity (CE)
Customer equity is a theoretical framework that represents a combination of the value of a firm’s current customer assets and the value of the firm’s potential customer assets. It is an aggregate measure of consumer profitability, and is defined by Rust et al. (2004) as the total of the discounted customer lifetime value (CLV) summed over all of the firm’s current and potential consumers. The three CEDs that comprise CE and are: (1) value equity drivers (VEDs) which are an objective measure of a consumer’s overall assessment of the utility of a product or service based on perceptions of what is received and what is given (Zeithaml 1988), (2) brand equity
drivers (BEDs) which reflect the customer’s subjective and intangible assessment of a firm’s brand, above and beyond its objectively perceived value, and (3) relationship equity drivers (REDS) which reflect the tendency of the customer to stick with the brand, above and beyond the customer’s objective and subjective assessments (Lemon, Rust, and Zeithaml 2001). The measurement items for the CE construct are adapted from the survey items used by Rust et al. (2004) to measure the CEDs.

Brand trust
Brand trust (BT) is the willingness of the average consumer to rely on the ability of the brand to perform its stated function (Chaudhuri and Holbrook 2001). The measurement items for BT were based on a two-dimension measurement model (reliability items and intentions items) developed and validated by Delgado-Ballester et al. (2003; 2004). Each of the two dimensions has four items.

Online reviews
Online reviews are peer-generated product evaluations posted on marketer or third party websites (Mudambi and Schuff 2010) and are an increasingly popular and important new information channel (Chen and Xie 2008). These consumer opinions can potentially be seen by millions, are available for long periods of time, and may be encountered by purchasers at precisely the time they are searching electronically for information about a firm and its products or services (Ward and Ostrom 2002). A study by Schindler and Bickart (2005) confirms that the influence of ORs is broadly spread across the entire consumer decision-making process.

Hypotheses

Online reviews and customer equity
Notable in the literature are the varying effects that the valence of ORs have on consumer decision-making (e.g. Kim & Gupta, (2012) Ludwig et al., (2013) Zhang et al., (2010)). Drawing upon attribution theory, (Kelley 1973) provides evidence of the influence of message valence on consumer decision-making. Kelley notes that the consensus principle in an attribution has been shown to afford a basis for confidence in one’s judgment. In other words, support from other individuals tends to increase adherence to one’s opinions, and disagreement with others tends to reduce certainty and increase the likelihood of change.

Thus, subject to the perception of a participant and their prior beliefs, exposure to negative or positive stimuli from others can influence a participant’s behaviours, attitudes and judgments. Mizerski and Green (1978) conclude that in the process of attributing the causes for events (e.g. product experience, WOM information or advertising), beliefs about the stimulus product are formed, which may then prompt the development of affect. Furthermore, Mizerski (1982) reported evidence that subjects receiving unfavourable information led to stronger affect and stronger beliefs in subjects’ post-test measures.

Online reviews can contain persuasive message content that can be perceived by the ‘receiver’ as objective, subjective, affective or any combination of the three. That is, the message can appeal to the value equity facet of CE, the brand equity facet of CE, or the relationship equity facet of CE. Alternatively, it can be a combination of each or an appropriation of all the drivers together in one single message (as determined by
the content in each message). The resulting effects on CE – be they persuasive or pointless – currently go unmeasured and are relatively unknown. Hence, H1 to H4 were used to address the first research question.

H1. There is a positive relationship between the valence of ORs and CE.
H2. There is a positive relationship between the valence of ORs and the VEDs of CE.
H3. There is a positive relationship between the valence of ORs and the BEDs of CE.
H4. There is a positive relationship between the valence of ORs and the REDs of CE.

Relative impact of the three drivers of customer equity

Determining the varying effects of the valence of ORs on the CEDs (H1–H4) is a valuable but merely initial contribution. By using the findings from the first research question, it is then possible to determine the relative impact of each of the CEDs. The value of doing so is that the posited varying effects can be analysed to determine how marketers can strategically allocate limited tactical resources amongst the three CEDs so as to maximise the return on equity from the firm’s ‘consumer asset’. This view is supported in the findings of Kumar and Shah (2009) and Kumar and George (2007), who conclude that, in the disaggregate-level approach, customer lifetime value (CLV) is maximised by implementing consumer-level strategies such as optimal resource allocation.

Lemon et al. (2001) note that in order to adopt the CE approach, a firm will need to assess which of the three CEDs is most important to their specific business situation and suggest that VEDs are the keystone of the consumer's relationship with the firm. If the firm's products and services do not meet the consumer's needs and expectations, even the best brand strategy and the strongest retention and relationship marketing strategies will be insufficient. Likewise, Vogel et al. (2008) reported the results of their study which also found that VEDs were the most important drivers in establishing future sales with BEDs being second. It is of critical importance to determine which of the CEDs have the largest impact on CE, as posed in the second research question. Based on the previous discussion, it is reasonable to expect that the VEDs should have the highest impact on overall CE, while the BEDs should have the second highest impact on CE. Hence, H5–H7 were used to address the second research question.

H5. VEDs have the highest impact on CE.
H6. BEDs have the second highest impact on CE.
H7. REDs have the third highest impact on CE.

Brand trust and customer equity

Trust is a principle aspect of any relationship; the level of its existence is a testament to a relationship’s strength. In their study, Delgado-Ballester and Munuera-Alemán (2001) demonstrated the central role of BT in affecting consumers’ commitment. An increase in consumer commitment would contribute to the creation of that ‘stickiness’ of the consumer to the firm that is paramount for relationship equity. This is consistent with the commitment-trust theory of relationship marketing (Morgan and Hunt 1994) that identifies trust as a key mediating variable in the desire to develop a stronger consumer-firm relationship over the long term, thereby influencing CE. In this research study, the effects of BT on CE will be tested at both the disaggregated
level (i.e. each of the three individual CEDs) and at the aggregate level (i.e. CE). Hence, H8–H11 were used to address the third research question.

H8: There is a positive relationship between BT and CE.
H9: There is a positive relationship between BT VEDs of CE.
H10: There is a positive relationship between BT and the BEDs of CE.
H11: There is a positive relationship between BT and the REDs of CE.

**Online reviews and brand trust**

One of the motives for using ORs is risk reduction during the decision-making process (Burton and Khammash 2010). It is the possibility of reducing risk for consumers where trust becomes vitally important, specifically in many relational exchange situations to reduce the risk of a service outcome (Kantsperger and Kunz 2010). Cheng et al. (2013) found that the effect of online consumer review valence, as mediated by the BT reliability dimension, explained 82 per cent of the variance in the willingness to buy. These examples provide evidence of a possibility that a causal relationship exists between the variables. As yet, there is no convergence in the literature of a single agreed upon explanation. The expectations of a possible mediating effect, as well as varying degrees of influence, based on valence and prior levels of BT are anticipated. Hence, H12–H14 were used to address the fourth research question.

H12. There is a positive relationship between the valence of ORs and BT.
H13. There is a positive relationship between ORs and the intentions items of BT.
H14. There is a positive relationship between ORs and the reliability items of BT.

**Methodology**

This study adopts a quantitative approach using a two (brand trust: low/high), by two (customer equity: low/high), by three (online reviews treatment sets: positive/balanced/ negative) factorial between-participants quasi-experimental design (Table 1).

**Table 1: The 2x2 and 2x3 approach:**

This method has been used in previous studies (Berger, Sorensen & Rasmussen, 2010). A financial services scenario was selected because evidence shows that CE has a high relative importance for the financial services industry (Bick 2009). The population of interest for this study was defined as: (a) US residents over the age of
18 years; (b) who are consumers of a chartered bank operating in the US; (c) who are ‘aware’ or ‘very aware’ of online review websites; and (d) have visited online review websites in the past. The sampling frame was the pre-recruited US online panels managed by a commercial global sampling solutions provider (www.surveysampling.com).

Adopting a restricted probability sampling design using the stratified random sampling technique, potential participants were randomly selected from the sampling frame and invited via e-mail to review the participant information; should they then wish to proceed, they were asked to provide informed consent. Potential participants were then shown instructions depicting the overall experimental process and were asked to complete the pre-treatment survey items. Based on those responses, four matched groups (BT: low/high, and CE: low/high) were created, and selected participants were randomly assigned to one of three treatment conditions using a trickle process of randomisation, while others who did not meet the criteria for inclusion to a sampling group exited the experimental system. Participants assigned to a treatment group were then introduced to the experimental task.

The experimental task
The experimental task was operationalised using a free simulation, in which participants were asked to imagine they were browsing online reviews at www.bankreviewsonline.com, an online user discussion forum that was purpose-built to conduct experimental research for this study. Upon completion of the experimental task, participants were instructed to proceed to the next step of the experiment where they were asked to complete the post-treatment survey items. The post-treatment survey items included a manipulation check. Following this, the same questions about the VEDs, BEDs and REDs were repeated. This data provided the ability to calculate the relative impact (i.e. direction of change, amount of change) that the experience of reading the ORs had on each participant’s attitudes towards the three CEDs.

The experimental treatments (stimuli)
The experimental stimulus was drawn from real C2C-generated online reviews. The popular online review website www.yelp.com was studied, and a dataset of relevant online bank reviews (3178 records) was created and examined offline. After performing several data reduction techniques, a suitable subset was identified and presented in an online assessment format to a focus group of 21 marketing and business professionals. The final experimental treatment sets (stimuli) were created as a result of this process. A summary of the mean scores based on the results from the focus group test is shown below (Table 2).
Table 2: Summary of average mean scores resulting from the focus group pre-test

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Valence</th>
<th>Value</th>
<th>Brand</th>
<th>Relationship</th>
<th>VBR Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>1.37</td>
<td>1.69</td>
<td>1.77</td>
<td>1.69</td>
<td>5.15</td>
</tr>
<tr>
<td>Balanced</td>
<td>2.44</td>
<td>2.36</td>
<td>2.73</td>
<td>2.34</td>
<td>7.43</td>
</tr>
<tr>
<td>Negative</td>
<td>4.54</td>
<td>3.31</td>
<td>3.52</td>
<td>3.36</td>
<td>10.19</td>
</tr>
</tbody>
</table>

Notes: A valence score of 1 = very positive and 5 = very negative  
A value, brand or relationship score of 1 = very strong and 5 = not evident  
VBR Score = the sum of mean scores for value, brand and relationship drivers of CE

The number of online reviews contained in each of the three treatment sets was eight. The average word count for the ORs within each treatment set was 106 words for the positive, 92 words for the negative, 106 words for the balanced treatment sets.

Results
Data for 269 participants was gathered using an online survey. The response rate for participant recruitment was 2.34%. Age, gender and region of participants, when compared to the census data for the U.S. population, were closely aligned (U.S. Census Bureau 2012). All eight variables used in the analyses were subjected to a preliminary data screening process including outliers, univariate normality and Mahalanobis distances. In summary, no participants had to be removed as a result of the data screening process.

Reliability and validity
To measure the reliability, Cronbach’s alpha was calculated on the eight variables. The tests showed that all variables reported good reliability, ranging from 0.86 to 0.95 after removal of three items discussed below.

As a test of the construct’s validity the path estimates linking the construct to its indicator variables in the initial model we’re examined (Figure 2). The ‘rule of thumb’ for the standardised path estimates is that they should be ‘at least 0.5 but ideally 0.7 or higher’ (Hair et al. 2010). The path estimate from change in CE to change in VEDs was 0.71; from change in CE to change in BEDs was 0.90; from change in CE to change in REDs was 0.65; from change in Intentions items to change in BT was 0.90, and from change in Reliability items to change in BT was 1.03. Therefore, all estimates for the assessment exceeded the minimum threshold.

As a further test of the construct’s validity the size of the factor loadings for each measurement item was examined. Hair et al. (2010) explain that high loadings on a factor would indicate they converge on a common point (i.e., the latent construct). The ‘rule of thumb’ for convergent validity should be at least 0.5 but ideally 0.7 or higher. Although all factor loadings were within the minimum acceptable range, three items (CEB_1, CEB_2 and CER_2) were below the ideal threshold of 0.7, therefore they were removed from the dataset prior to proceeding with the data analyses.
**Structural equation modelling**

The initial model was run through Mplus to determine fit. The variable OR was dummy coded into positive and negative treatment sets, with the reference variable being the balanced treatment set. As a result, there are no standardised weights reported for the balanced treatment set; this is noted with the ◊ symbol (Figure 2). The results showed the initial model had a good fit ($\chi^2 [10] = 16.53, p = .085$, RMSEA = .05, CFI = .99, TLI = .99, SRMR = .03).

![Figure 2: Initial model with standardised estimates](image)

**Hypotheses testing**

Hypotheses 1 to H4 addressed the question: What is the effect of the valence of ORs on the three drivers (value, brand and relationship equity) of CE? Using the initial SEM model, negative ORs cause the VEDs, BEDs and REDs to go down, thereby negatively affecting CE. Positive ORs cause the BEDs to go up, thereby positively affecting CE; thus H1 was accepted, and H2, H3 and H4 were partially accepted.

Hypotheses 5 to H7 addressed the question: What is the relative impact of the valence of ORs on the three drivers (value, brand and relationship equity) of CE? An examination of the standardised regression weights from H2, H3 and H4 reveals that the negative treatment set had a significantly larger change on VEDs (-0.22**) compared to the balanced treatment set (reference variable). The positive treatment set had a significantly larger change in BEDs (0.16*) compared to the balanced treatment set (reference variable). Between BEDs and REDs, the negative treatment set had an equally strong relationship with both the change in REDs (-0.15*) and the change in BEDs (-0.15*) compared to the balanced treatment set (reference variable). Overall, H5, H6 and H7 were accepted.
Hypotheses 8 to H11 addressed the question: What is the effect of BT on the three drivers (value, brand and relationship equity) of CE? Using the initial SEM model, the path from BT to the change in CE was examined. The path was significant (standardised estimate = -0.22, p = 0.002), suggesting that as BT increases, the change in CE decreases. Hence, BT has a significant negative relationship with CE; thus H8, H9, H10 and H11 were rejected.

Hypotheses 12 to H14 addressed the question: What is the effect of the valence of ORs on BT? Using the initial SEM model, the paths from positive treatment set and negative treatment set to BT was examined. Neither weight estimates for those paths were significant, suggesting that there is no relationship between ORs and BT. Hence H12, H13 and H14 were rejected.

A summary of model fit by hypotheses is presented in Table 3.

### Table 3: Summary of model fit by hypotheses:

<table>
<thead>
<tr>
<th>model</th>
<th>X2</th>
<th>p</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1, H8, H12</td>
<td>16.53</td>
<td>.085</td>
<td>.99</td>
<td>.99</td>
<td>.05</td>
</tr>
<tr>
<td>H2, H9</td>
<td>6.16</td>
<td>.046</td>
<td>.99</td>
<td>.97</td>
<td>.09</td>
</tr>
<tr>
<td>H3, H10</td>
<td>3.82</td>
<td>.148</td>
<td>1.00</td>
<td>.99</td>
<td>.06</td>
</tr>
<tr>
<td>H4, H11</td>
<td>5.96</td>
<td>.051</td>
<td>.99</td>
<td>.97</td>
<td>.09</td>
</tr>
<tr>
<td>H5</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>H6</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>H7</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>H13</td>
<td>10.70</td>
<td>.098</td>
<td>.99</td>
<td>.97</td>
<td>.05</td>
</tr>
<tr>
<td>H14</td>
<td>8.39</td>
<td>.211</td>
<td>.99</td>
<td>.98</td>
<td>.04</td>
</tr>
</tbody>
</table>

**Discussion**

Addressing the first research question, this study confirms that there is a positive relationship between the valence of ORs and CE. There are several examples in the WOM and eWOM literature that draw upon attribution theory to explain their findings. Attribution theory is a theory about how people make causal explanations, and about how they answer questions beginning with ‘Why…?’ It deals with the information used to make causal inferences and how this information answers causal questions (Kelley 1973). In other words, the first task of an individual would be to make a causal judgment of an observed effect (i.e. action or outcome) by seeking to identify the most reasonable cause(s) attributed to that effect. The second task is for the individual to form inferences about the attribution based on their perception of either an internal or external cause, to which they have responded (Langdridge 2007). These inferences are called ‘causal attributions’.

Kelley and Michela (1980) present a general model of the attribution field, suggesting there are three antecedents (information, beliefs, motivation) and three consequences (behaviour, affect, expectancy). Through the course of conducting this online experiment, participants were exposed to experimental treatment sets (stimuli), where the valence of the ORs was manipulated (positive, balanced or negative). It is suggested that this exposure to the stimulus (‘information’) was the antecedent that triggered the attribution process within participants. The attribution process is where participants search for an effect’s cause. They then form beliefs and make judgments based on that decision, which may result in a cognitive outcome, such as an
attitudinal shift or overt behaviour, once the process has been integrated (Mizerski, Golden, and Kernan 1979).

Table 4: Information patterns for the three attributions

<table>
<thead>
<tr>
<th>Source of Attribution</th>
<th>Patterns of Information</th>
<th>Consensus</th>
<th>Distinctiveness</th>
<th>Consistency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stimulus</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>Person</td>
<td>Low</td>
<td>Low</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>Situation</td>
<td>Low</td>
<td>High</td>
<td>Low</td>
<td></td>
</tr>
</tbody>
</table>

Adapted from: Orvis, Cunningham and Kelley (1975, p. 607, Table 1)

The model for patterns of information (Table 4) clarifies that not all combinations of information permit such simple predictions. Using the ‘logical properties’ in the table, the authors explain that ‘only one level of each kind of information can be related to only one of the three patterns, whereas the other levels can be related to the other two patterns’. As an example, ‘high consensus fits only the high-high-high (HHH) pattern, whereas low consensus fits both the low-low-high (LLH) and the low-high-low (LHL) patterns’ (Orvis, Cunningham, and Kelley 1975). In the present study, the experimental treatments were based on repeatedly positive (or negative or balanced) valence ORs which would suggest a level of high consensus. Using the model under a condition of high consensus, it can be reasoned that the causal attribution was a result of the stimulus (i.e. the ORs of banks in each treatment set).

Focusing the discussion on the second research question, high motivation and pragmatic concerns cause people to process relevant information more thoroughly. This is supported by Baumeister et al. (2001), who found that people cannot afford to process all information to an equally full extent, and that bad news is generally stronger than good. Hence, information pertaining to negative events should receive more thorough processing than information about positive events. This was reflected in people paying more attention to negative events, as well as in elaborating them more thoroughly or constructing more extensive cognitive interpretations.

Thus, the final outcome is the greater weighing of negative information in comparison to equally extreme positive information in the formation of evaluative judgments. Ample evidence of this bias can be found in the literature. For example, in a study of factors (valence: positive or negative) that mediate WOM effects on consumers’ judgment and persuasion, Herr et al. (1991) found that negative information is more informative than positive information in assisting consumers to categorise goods; this is because negative cues were found to be less ambiguous than positive or neutral cues. Ahluwalia (2002) notes that past research has obtained a robust negativity effect, typically under conditions of moderate to high involvement, which is characteristic of financial services provided by banks.

Understanding the fundamental differences between the three CEDs can also help to explain the effect of the valence of ORs. Distinctly, one is objective, one is subjective and one can be referred to as relational or emotive. As such, in order to adopt the CE
approach, a firm will need to make their own assessment of which of the three CEDs is most important to their specific business situation, and adjust their tactical marketing actions accordingly. For the stimulus in this study, specifically identified messages were selected because they contained a relatively equal balance of appeal corresponding to each of the three CEDs within each single OR. This was done with the goal of measuring the relative importance of each of the CEDs. Outside the experimental environment, the content of ORs will not be so carefully specified.

Addressing the third research question, BT was unexpectedly found to have a negative relationship with the CEDs. Trust is a principle aspect of any relationship and the level of its existence is a testament to the strength of such a relationship. As such, other explanations for the results need to be explored in order to understand the negative relationship, as this remains unexplained. One possible explanation of the findings could be that BT as a factor is not directly related to the change scores for each of the three CEDs. Surprisingly, based upon the SEM analysis of data collected for this study, no significant relationship was found between CE and BT. This is contrary to the related current literature.

In this study, the dependent variable was a longer-term measure compared with the nearer-term outcome of willingness to buy. Trust is not static. Lewicki et al. (2006) report that the literature portrays trust as building incrementally over time, in a process where individuals carefully scrutinise all trust-relevant information so as to ensure trusting choices are made. They also note that individuals can quickly withdraw their trust should it be misplaced. Such a long-term outcome as brand trust may prove to be difficult to measure in a cross-sectional study, where the influence of ORs as an input of trust could not adequately be captured in the present operationalisation of the conceptual framework. Temporal issues do play a role in matters of trust and CE as individuals have been shown to change their attitudes and opinions based on new experiences or contextual situations that occur over time.

Conclusion
A major contribution of this study is the effect that positive and negative ORs have on CE, a relatively longer-term measure of firm performance that puts the consumer first. By adopting a CE approach, the firm can maximise its investment return from its ‘marketing assets’, thereby improving shareholder value.

Limitations
The findings of this research are limited to the effects of eWOM communication in the form of online reviews published in a textual format on a website. Caution must be exercised when attempting generalisations about the effects of eWOM communication across varying platforms and formats without adequate justification. Another limitation of the work is the fact that the data collected from the quasi-experiment is based on participants’ measured responses to stimuli from manipulated treatments, as these can only hypothetically affect their perception of the BT and CEDs, thus forming the basis of their relationship with that specific service provider (bank). It would be difficult to substantiate the external validity of the findings in a real-life setting where participants’ reactions may differ from that of the quasi-experimental environment.
References


The Effect of Work Family Conflict on Employees Job Attitudes and Mediating Role of Organization Citizenship Behavior: A Study of the Banking Sector of Pakistan

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Abstract
Researchers have repetitively verified the unconstructive effects of work and family conflict on employee’s behaviors and attitudes. For this reason interference of work and family was key concern for individuals and as well as for the organizations around the globe. This research was an attempt to analyze significant impacts of Work Family Conflict on job attitudes like Job Satisfaction, Job Burnout and Turnover intentions through mediation of Organizational Citizenship Behavior in banking sector of Pakistan. Findings demonstrated that Work Family Conflict was positively related with Job Burnout, Turnover intentions and negatively related to Job Satisfaction. OCB mediates the relationship between WFC and Job attitudes of employees.

Keywords: Work Family Conflict, Family Work Conflict, Job Satisfaction, Turnover intention, Job Burnout, OCB
1. Introduction

Currently employees are probably more concerned with how to keep equilibrium between their work and family realms. Nobody can manage a satisfying and pleasing life without family, psychological satisfaction, social obligations and divine enlightenment. To sustain the wheel of life moving and striking it is essential to maintain the stability between life and work. Modern inclination such as pecuniary expansion, globalization and equal employment opportunities for both the genders has led to an increasing attentiveness on the impact of work life issues on the employee’s attitudes. As work and family both are the most considerable constituent of an individual’s life. During fulfilment of manifold responsibilities of work and family realm require immense time and vivacity. At the workplace, increased inclusive competition and the espousal of new technologies that permit workers to easily contact around the clock have amplified the demands of time, attention and work (Valcour, 2007). Scores of employees report considerable echelon of work and family conflicts as a result of trends at their place of work and home (Galinsky, Aumann, & Bond, 2009).

The Banking zone of Pakistan has been revolutionized from last several years. Number of competitors, the war of survival among the banks, financial conditions, regulations, political instability and power catastrophe affected this industry. Consequently not only their business volume is declining but the numeral transactions are also waning. Banking Sector of Pakistan is experiencing speedy turnovers due to all these reasons (Hunjra, Chani, Aslam, Azam, & Rehman, 2010).

The job of bank employees is also considered demanding and frequently recognized with intense workloads with long working hours, plentiful targets, stress, time restrictions, conflicting demands, unnecessary paper work and repeatedly customer workplace deviant behaviour. Extended working schedules and late timings are considered one of the reasons of work family conflict and Job Burnout.

This study is an attempt to investigate the reasons of Work Family Conflict and its impact on job related attitudes. This study is also an endeavour to grant a vanguard for the policy makers to avoid work life conflicts. This research can also be supportive for the implementation of family friendly policies and supportive work environment that can reduce the negative outcomes of Work Family Conflict and improve job related outcomes.

2. Literature Review

2.1 Work Family Conflict:

Conflicts are everywhere. No one can evade them not even individuals and organizations too. They are escalating day by day due to role demands and anxiety in both domains (Family and work). Although in the early years researchers might have assumed that work and family were two different domains (Brotheridge & Lee, 2005), however the past few decades, an ample of research and review articles have focused on the connection of the work and Family Conflict fields e.g. (Bellavia & Frone, 2005; Ford, Heinen, & Langkamer, 2007; Frone, Russell, & Cooper, 1992; Greenhaus & Beutell, 1985; Voydanoff, 2005). Work Family Conflict means a conflict of work and family unified roles. It is stated by (Greenhaus & Beutell, 1985) there is incessant change in the organizational as well as in individual’s life. Meeting all these changes is tricky for both employees and organizations, so there are increasing issues for both employees and organizations as they have to settle these matters.
Work Family Conflict results in different negative job attitudes (Porter, Steers, Mowday, & Boulian, 1974). This adverse situation leads to multiple negative consequences not only the within but outside the both domains e.g. elevated absenteeism and turnover intentions. Previous research also has shown the continuous harmful results of work family interference on employees’ Job Satisfaction, family life happiness, wellbeing, job anxiety, job recital, and intentions to leave an organization (Karatepe & Baddar, 2006; Karatepe & Bekteshi, 2008; Karatepe & Uludag, 2007, 2008; Michel, Mitchelson, Kotrba, LeBreton, & Baltes, 2009).

WFC usually have two dimensions: work is capable to encumber with family and family can encumber with work. There are six facets of work and family conflict. WFC and FWC each is subdivided in three dimensions: time, strain, and behaviour based types of conflict. Work-family conflict is characterized by a type of inter/ intra role conflict, where the role demands and strain from work and family realm are reciprocally contrary to each other (Frone et al., 1992; Greenhaus & Beutell, 1985; Netemeyer, Boles, & McMurrian, 1996).

Literature also distinguish the time-based conflict and strain-based WFC (Golden, Veiga, & Simsek, 2006; Mesmer-Magnus & Viswesvaran, 2005; Oshagbemi, 1999). Time based conflict occurs when the amount of time devoted to one role makes it harder (or impossible) to complete the activities of another role (Edwards & Rothbard, 2000). Sometimes workers have to spend additional time for an explicit project or task. This situation prevents them from having the sufficient time to pick up their kids from school or there is no spare time left to do something else. It can be explained in terms of time based conflict when time pressure cause a bee in your bonnet with another role (Edwards & Rothbard, 2000). This adverse situation leads to multiple negative consequences not only the within but outside the both domains e.g. elevated absenteeism and turnover intentions. Previous research also has shown the continuous harmful results of work family interference on employees’ Job Satisfaction, family life happiness, wellbeing, job anxiety, job recital, and intentions to leave an organization (Karatepe & Baddar, 2006; Karatepe & Bekteshi, 2008; Karatepe & Uludag, 2007, 2008; Michel, Mitchelson, Kotrba, LeBreton, & Baltes, 2009).

2.2 Job Satisfaction

Locke, (1969) defines Job Satisfaction as a pleasing emotional condition that is the outcome of an individual’s consideration regarding Job Satisfaction. (Oshagbemi, 2000) shows psychologically Job Satisfaction can be defined as individual’s affirmative emotional reaction towards a specific job in organization. (Gill, 2008) defines that work force with elevated measure of reliance will demonstrate the elevated levels of Job Satisfaction. JS is the state of gratification that employee gains from that specific job and experience of job (Tanriverdi, 2008).

2.3 Job Burnout

The idea about burnout was initiated by (Freudenberger, 1974). It refers to the failure to perform efficiently in individual’s job as a result of uninterrupted and extensive job linked traumas. job demands resources model is considered most successful and recent theory in the expansion of Burnout research (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). This model hypothesized that burnout as a product of workloads that lead towards exhaustion, and deficient resources makes it harder to meeting the demands and lead to cynicism. Empirical research widely supports this model calculations (Bakker, Westman, & Schaufeli, 2007). Job Burnout is an ongoing attrition of an individual’s resources and vigour, which frequently results to exhaustion, cynicism, and low level of professional efficacy (dimensions of Burnout) in the organization. It is in fact an obnoxious state of brainpower regarding work
has attained a crucial altitude in nowadays workforce (Cordes & Dougherty, 1993). There are three facets of Job Burnout named as “emotional exhaustion”, “cynicism” and “lack of self-efficacy”. Emotional exhaustion characterizes the conviction of being emotionally worn out and fatigued by the disturbing demands of work (Demerouti et al., 2001).

2.4 Turnover Intentions
It is a cognisant and premeditated willingness to depart from the organization (Tett & Meyer, 1993). It is a psychological assessment and individual’s approach regarding to a specific job whether to persist or leave that profession (Jacobs & Roodt, 2007). (Chi & Yang, 2013) concluded that Turnover intention is also related to negative mood, the higher the worker’s depressing mood, and the more recurrent his/her supposed workgroup conflict, that results in to higher intention to leave.

2.5 Work Family conflict, job satisfaction, Turnover Intensions, job burnout and mediating role of the OCB:
There is also piece of evidence that Job Satisfaction of employees has been the most researched job behaviour related artefact coupled with Work Family Conflict and research has demonstrated complementary results (Amstad, Meier, Fasel, Elfering, & Semmer, 2011). Although Researchers testimony that WFC in negative relationship with Job Satisfaction (Beutell, 2010; Karatepe & Kilic, 2007). Employees with enormous Work Family Conflicts have been discovered less satisfied with their job (Allen, Herst, Bruck, & Sutton, 2000). (Panatik, Badri, Rajab, Rahman, & Shah, 2011) also discovered a negative connection between Work Family Conflict and Job Satisfaction.
OCB is known as unimpeded behaviour in organizations; this specific behaviour that is not legitimately delineated by job portrayal or by the person’s official role in the organization (Kohan & Mazmanian, 2003). It also refers to the employee helping his/her colleagues in their work without reward (Lo & Ramayah, 2009).
Actually members who are satisfied with their jobs and working conditions exhibit superior kind of OCB and successively it reflects on work performance. Swaminathan & Jawahar, (2013) also concluded a positive relationship between JS and OCB.

• **Hypothesis 1:** Work Conflict is negatively related to the Job Satisfaction.
• **Hypothesis 2:** OCB mediates the relationship between the Work Family Conflict and Job Satisfaction.

There is positive relationship between turnover intention and Work Family Conflict (N. Ali & Baloch, 2009). As Work Family Conflict increases the turnover intentions also goes high. WFC and FWC can be the predictor of turn over intentions (Haar, 2004). (Panatik et al., 2011) also concluded that as Work Family Conflict increases, turnover intention also increases. Work Family Conflict is also connected with turnover intentions because exit the job may be viewed as a technique to cope with the stress associated with Work Family Conflict (Bellavia & Frone, 2005). Alsam, Imran, Anwar, Hameed, & Kafayat, (2013) concluded that WFC has a positive impact on turnover intentions and the employees facing WFC are more likely to leave an organization in Banking Sector. It is suggested recently that the lack of willingness to demonstrate OCB or meagre Citizenship maybe an warning of employee withdrawal from the organization (X. Chen, 2005).

Mowday, Porter, & Steers, (1982); Podsakoff, Whiting, Podsakoff, & Blume, (2009) indicates that OCB has negative impact on turnover of employees and malingering. Chen,
Hui, & Sego, (1998) indicates that employees with lower levels of OCB have more chances to go away from an organization than employees with elevated levels of OCB.

- **Hypothesis 3**: Work Family Conflict is positively related to Turnover intentions.
- **Hypothesis 4**: OCB mediates the relationship between Work Family Conflict and turnover intentions.

Work interference with family leads to the condition of emotional fatigue, such feelings have decreasing impact both efficient reactions to affective commitment to the job and towards the association (Chu, Baker, & Murmann, 2012; Karatepe & Kilic, 2007). Work-family conflict is the strongest interpreter of Job Burnout as compared to the family-work conflict in numerous studies. The findings of this study indicate that there is a significant relationship between work-family conflicts towards Job Burnout. (E. A. H. Ali, 2006).

It can be argued that exhausted and stressed workers are too drained to endow assets like time and best effort in their work. For these explanations, it is appealing to assume that emotional exhaustion will precede withdrawal of help oriented behaviours. (E. G. Lambert, 2010) also concludes that Organizational Citizenship Behaviour is negatively related to Job Burnout and OCBs can help to reduce the Job Burnout.

Family and work conflicts are positively associated with Job Burnout. There for strain based conflicts, and behaviour based conflicts are also associated with Job Burnout. Statistically significant, strain based conflict has the largest sized consequences on Job Burnout. Interestingly, time-based Conflict has a non-significant association with burnout among the surveyed correctional staff (E. Lambert, Hogan, & Altheimer, 2010). On the basis of above literature review following hypothesis are proposed.

- **Hypothesis 5**: Work Family has positive impact on Job Burnout.
- **Hypothesis 6**: OCB mediates the relationship between the Work Family Conflict and Job Burnout.

### 3. Methodology

#### 3.1 Population and sample

Convenient sampling technique was used for the present research. Total 450 questionnaires were distributed and 350 were received back with a response rate of 77%. Most of respondents were under the age group less than thirty.
3.2 Measures

- Work Family Conflict was measured with the scale developed by (Netemeyer et al., 1996). Cronbach alpha for the work family conflict was 0.788 and it was acceptable.
- (Williams & Anderson, 1991) fourteen items scale was used to measure the Organizational Citizenship Behaviour as a Mediator. Cronbach alpha for Organizational Citizenship Behaviour was .87 and was quite good.
- Job Burnout was measured with Maslach Burnout Inventory–General Survey (MBI-GS) (Maslach, Jackson, & Leiter, 1996). Internal consistency for this scale was 0.75.
- Turnover intention was assessed with the three items scale from (Michigian Organizational Assessment Questionnaire from (Canmann, Fichman, Jenkins, & Klesh, 1979). Internal consistency for this scale was 0.88.
- Job Satisfaction was measured by Minnesota Satisfaction Questionnaire developed by (Weiss, Dawis, & England, 1967). Cronbach alpha for Job Satisfaction was 0.87 and it was quite good.

3.3 Data collection
Primary data was collected from public and private banks through structured questionnaire from both male and female employees of banks.

3.4 Statistical and data analysis
Statistical analysis was done through descriptive & inferential statistics. Pearson’s correlation coefficients were used to analyse the relationships between variables. SPSS (20.0) was used to test the mediation procedures as described by (Baron & Kenny, 1986). To test the significance we used the (Sobel, 1982), as it symbolizes a careful, traditionalist, and acquiescent method to test mediation (Baron & Kenny, 1986). Bootstrapping resampling technique was used as described by the(Preacher & Hayes, 2004).

4. Results and discussion
Gender distributions of sample shows that 74% respondents are male, while remaining 26% are female. 76% respondents are married while 24 % are unmarried. Age distribution shows that 59 % respondents are less than age of 30.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Descriptive statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Frequency</td>
</tr>
<tr>
<td>Male</td>
<td>256</td>
</tr>
<tr>
<td>Female</td>
<td>94</td>
</tr>
<tr>
<td>Marital Status</td>
<td>Frequency</td>
</tr>
<tr>
<td>Married</td>
<td>266</td>
</tr>
<tr>
<td>Unmarried</td>
<td>84</td>
</tr>
<tr>
<td>Age</td>
<td>Frequency</td>
</tr>
<tr>
<td>Less than 30</td>
<td>206</td>
</tr>
<tr>
<td>31-35</td>
<td>114</td>
</tr>
<tr>
<td>35-40</td>
<td>26</td>
</tr>
<tr>
<td>41-45</td>
<td>4</td>
</tr>
</tbody>
</table>
Table 2 above shows a negative correlation of WFC with the Job Satisfaction with value of -.408. This illustrates that with increase in Work Family Conflict the Job Satisfaction decreases. The strength of relationship between Work Family Conflict and Job Satisfaction is moderate. This supports to our first hypothesis i.e. work family conflict has negative impact on job satisfaction. On the other hand Work Family Conflict has a positive correlation with turnover intentions (0.311) and Job Burnout (0.362). It means that increase in the WFC will increase the Job Burnout, turnover Intentions and decreased Job Satisfaction & OCB. These results support our hypothesis 3 and 5 i.e. work family conflict has positive relation with turnover intentions and burnout.

Table 3 shows the direct and total effect of independent variables and dependent variables and mediator. This Table also shows the results for all necessary regression analysis conditions as described by (Baron & Kenny, 1986) to check the mediation.

1. **b (YX)** shows the effect of predictor X (Work Family Conflict) on Y (Job Satisfaction), so it’s the beta coefficient.

2. **b (MX)** This is the effect of predictor X (Work Family Conflict) on M mediator OCB. We have to establish the relationship between the mediator and both the IV and DV for the mediation. Result is significant with P=.000. This fulfills the 2nd condition for Mediation i.e. IV should effect the Mediator in a significant way.

3. **b (YM,X )** This path shows the direct effect of Mediator OCB on the DV(Job Satisfaction), controlling for the effect of IV (Work Family Conflict) and it is significant on P=.000. In this way 3rd condition for the Mediation has also been fulfilled. These results support to our hypothesis i.e. OCB mediates the relationship between WFC and Job Satisfaction.

4. **b (YX,M)** this path shows the total effect of IV (work Family Conflict) on DV(Job satisfaction ), controlling for the effect of Mediator( OCB). This path is also significant. These results support to our hypothesis i.e. Organizational Citizenship mediates the relationship between Work family Conflict and Job satisfaction.
In addition we perform the (Sobel, 1982), the results \( z = -3.45 ; p < 0.001 \) indicates that indirect effect exist within our model.

**Table 3**

<table>
<thead>
<tr>
<th>Mediation of OCB between WFC and JS</th>
<th>( \beta )</th>
<th>S.E</th>
<th>T</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) ( b ) (YX)</td>
<td>-0.33</td>
<td>0.09</td>
<td>-8.3</td>
<td>.000</td>
</tr>
<tr>
<td>2) ( b ) (MX)</td>
<td>-0.23</td>
<td>0.046</td>
<td>-4.95</td>
<td>.000</td>
</tr>
<tr>
<td>3) ( b ) (YM.X)</td>
<td>0.22</td>
<td>0.043</td>
<td>4.82</td>
<td>.000</td>
</tr>
<tr>
<td>4) ( b ) (YX.M)</td>
<td>-0.28</td>
<td>0.039</td>
<td>-7.07</td>
<td>.000</td>
</tr>
</tbody>
</table>

Finally we performed the (Preacher & Hayes, 2004). Table 4 shows the indirect effect of WFC on JS through an employee’s OCB is \(-0.049\) and the associated 95%-bias-corrected confidence interval is between \(-0.078\) and \(-0.024\) (5000 number of bootstrap resample). Because zero is not within this bias-corrected interval, the bootstrapping method supports our hypothesis that an indirect mediating effect exists.

**Table 4**

<table>
<thead>
<tr>
<th>Sobel Bootstrap results for indirect effect</th>
<th>Effect</th>
<th>LL95CI</th>
<th>UL95CI</th>
<th>Z</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sobel</td>
<td>-0.049</td>
<td>-0.077</td>
<td>-0.0215</td>
<td>-3.45</td>
<td>.000</td>
</tr>
<tr>
<td>Bootstrap</td>
<td>-0.049</td>
<td>-0.078</td>
<td>-0.024</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. \( b \) (YX) shows the effect of predictor X (Work Family Conflict) on Y(Turnover Intentions), and this relationship is significant. This supports not only our first hypothesis but also fulfil the first condition of (Baron & Kenny, 1986) for mediation.

2. \( b \) (MX) This is the effect of predictor X (Work Family Conflict) on M mediator Organizational Citizenship Behaviour. We have to establish the relationship between the mediator and both the IV and DV for the mediation.

3. \( b \) (YM.X) This path shows the direct effect of Mediator OCB on the DV (Turnover Intentions), controlling for the effect of IV (Work Family Conflict) and it is also significant on \( p. = .0000 \).

4. \( b \) (YX.M), this path shows the total effect of IV (work Family Conflict) on DV (Job satisfaction), controlling for the effect of Mediator (OCB). This path is also significant.
These results support to our hypothesis i.e. Organizational Citizenship mediates the relationship between Work family Conflict and Turnover intentions.

**Table 6**

<table>
<thead>
<tr>
<th>Effect</th>
<th>LL95CI</th>
<th>UL95CI</th>
<th>Z</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sobel</td>
<td>.050</td>
<td>.015</td>
<td>.086</td>
<td>2.80</td>
</tr>
<tr>
<td>Bootstrap</td>
<td>.050</td>
<td>.014</td>
<td>0.10</td>
<td></td>
</tr>
</tbody>
</table>

we use the (Sobel, 1982), as it signifies a meticulous, conformist, and assenting method to test mediation (Baron & Kenny, 1986). The result shows that indirect effect exist and significant at \(Z = 2.80\) and Bootstrap results also indicates that an indirect effect exists within our model because zero does not lies between both upper and lower limits.

**Table 7**

| Direct and total Effects to test the Mediation of OCB between WFC and JB |
|-----------------|------|------|------|
| B   | S.E | T    | Sig  |
| 1) b (YX) | .025 | .024 | 1.03 | .000 |
| 2) b (MX) | -.126 | .039 | -3.20 | .001 |
| 3) b (YM.X) | -.097 | .033 | -2.94 | .003 |
| 4) b (YX.M) | .013 | .024 | .534 | .005 |

b (YX) shows the effect of predictor X (Work Family Conflict) on Y(Job Burnout). This supports not only our hypothesis (Family Work Conflict has positive impact on Job Burnout) but also fulfil the first condition of (Baron & Kenny, 1986) for mediation.

1. b (MX) This is the effect of predictor X (Family Work Conflict) on M mediator Organizational Citizenship Behaviour. We have to establish the relationship between the mediator and both the IV and DV for the mediation. Result is significant at P value <.0001. This result fulfil the second condition for Mediation i.e. IV should effect the Mediator in a significant way.

2. b (YM.X) This path shows the direct effect of Mediator OCB on the DV(Job Burnout), controlling for the effect of IV (Work Family Conflict) and it is significant on P = .003. In this way 3rd condition for the Mediation is fulfilled.

3. B (YX,M), this path shows the total effect of IV (work Family Conflict) on DV(Job Burnout), controlling for the effect of Mediator(OCB). This path is also significant. These results support to our hypothesis i.e. Organizational Citizenship mediates the relationship between Family Work Conflict and Job Burnout.
The sobel test result shows that indirect effect exist and significant at \( Z = 2.115, \ p=.03 \). Both the upper and lower limit for sobel test and Bootstrap associated 95%-bias-corrected (5000 number of bootstrap resample) support that, existence of indirect effect. Because zero is not within this bias-corrected interval,( both lower and upper limit). This result supports to our hyothesis i.e. Organizational Citizenship Behaviour mediates the relationship between Work family Conflict and Job Burnout.

5. Conclusion

The major and foremost purpose of the study was to investigate the effects of Work Family Conflict on the employee’s attitude towards their job like Job Burnout, job turnover and Job Satisfaction under the mediation of OCB. Overall results were significant and supported the hypothesis. The results were consistent with the conception that work family leads to less Job satisfaction, increased Job Burnout and turnover intentions.

Work family conflict has negative impact on job satisfaction and positive impact on job burnout and turnover intentions. It means that employees facing augmented level of work family conflict are less satisfied from their jobs, more prone to burn outs and have more intention to leave the organization. Higher level of Work Family Conflict increases the turnover intensions. The results are in line with the previous studies e.g. Panatik et al., (2011). Employees who are facing conflicts among their jobs and life are more prone to turnover intentions and always look for new jobs to reduce the work family Interference. According to (Bellavia & Frone, 2005) exit the job may be viewed as a technique to cope with the stress associated with Work Family Conflict. Work Family Conflict also predicts less demonstration of Organizational Citizenship Behaviour which further cause the Job dissatisfaction and Burnout from job and ultimately results in the form of Turnover intentions.

Managerial implications

Employers must know the emerging importance of the quality of life in work and family realms. Managers and policy makers can reap the benefits by implementing the work and family enrichment policies which will ultimately lead the employees towards maximum performance. Flexible working schedules and family friendly policies should be introduced to maintain the work life balance and to avoid work family conflict. To triumph over Job Burnout and Work Family conflict caused by lack of sufficient time for family, worries related to job at home, the long working hours and job stipulates needs special modification. Thus the committed and satisfied human resources are the supreme asset of any organization.
References


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Inventory Management and Firm's Performance During the Period of Financial Constraints: An Empirical Analysis of SME Sector in Greece

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Alina Hyz, Piraeus University of Applied Sciences, Greece

The European Business and Management Conference 2015
Official Conference Proceedings

Abstract
In the last years, inventory management has become an integral part of all companies. Inventory management involves a trade-off decision between the advantages and the disadvantages of holding stock. Our research aims to investigate the relationship between firm level inventories and financial performance during the crisis periods, using SMEs' data for the region of Epirus in Greece. The study covers ten years period, which we split into two periods, before and post to 2008, considering 2008 as the beginning period of the recession in Greece and the first year of serious financial constraints for Greek firms. The study empirically examines differences in inventory ratios, both total inventory and its discrete components (finished goods, work in process and raw materials) between main sectors of economic activity in the region of Epirus, and the relationship between inventory management and firm performance on a sample of financial data of 612 enterprises. The results of the correlation and the regression analysis show negative relations between inventories and profitability. This indicates that the policy of minimization of inventories' level may improve firms' profitability. The significance of this study stems from the fact that it sheds light for the desirable firms' policy during the period of financial constraints.

Keywords: inventory management, firm performance, elasticity, small and medium enterprises (SMEs), financial crisis, Greece
Introduction

The SME sector plays a very important role in today's economy. It is confirmed by the experience of highly developed countries, whose economies are dominated by the network of small (or virtually very small) and medium-sized enterprises (Mulhern, 1995; Hyz, 2006). Greece is considered as the country where SMEs amount for 99,9% businesses, 57,4% of value added, 69% of total employment and 85% of private employment (EC 2013). More than 97% of all Greek enterprises are micro companies (EC 2013). The currently observed slowdown in the development of the SME sector, poses a threat to the economic situation of Greece and especially for some regions of Greece1.

The term "inventory" in manufacturing companies refers to the stockpile of the products a firm is offering for sale and the components that make up the product. The assets which firms store as inventory are raw materials, work in process, finished goods and supplies. The last asset, normally, form a very minor part of total inventory and do not involve significant investment.

In the last years inventory management has become an integral part of all companies. Inventory management involves a trade-off decision between the advantages and the disadvantages of holding stock. The benefits of holding inventory must be weighed against any costs incurred. During the period of financial constraints firms have to find ways to gain funds (Bukowski, 2011; Hyz, 2011). One of the sources may be the reduction of inventories keeping by firms. As a result, effective inventory management during the period of recession gets even more importance.

In the last decades, inventories have been decreasing in many firms. Evidences of improvement of firm performance are mixed. Table 1 provides an overview of the impact found in different studies of inventory management on firm's profitability.

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1 For the situation of Greek SMEs during the last economic crisis see EWCO (2013); Hyž and Gikas, (2012)
Table 1. Impact of inventory management on firm’s profitability

<table>
<thead>
<tr>
<th>Researcher(s)</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demeter (2003)</td>
<td>Inventory improvement tends to influence only indirectly the firm’s profitability</td>
</tr>
<tr>
<td>Gaur et al. (2004)</td>
<td>The annual inventory turnover is negatively correlated with gross margin and positively correlated with capital intensity and sales surprise</td>
</tr>
<tr>
<td>Chen et al. (2005)</td>
<td>Firms with abnormally high inventories had a poor long term stock return, firms with low inventory showed ordinary returns and the firms having an average inventory shown good stock returns</td>
</tr>
<tr>
<td>Roumiantsen and Netessine (2005)</td>
<td>Firms operating with more uncertain demand, longer lead times, higher gross margins and lower inventory holding costs have higher inventory levels</td>
</tr>
<tr>
<td>Gaur and Kesavan (2008)</td>
<td>Inventory turnover increases with sales growth rate, but its rate of increase depends on firm size and on whether sales growth rate is positive or negative</td>
</tr>
<tr>
<td>Boute et al. (2007)</td>
<td>Negative coefficients relationship between the inventory ratio and financial performance (ROA). These coefficients are only significant in 29% of the cases studied. The analysis of variance shows that companies with a very high inventory ratio have much more chance to be bad financial performers than companies with a very low inventory ratio</td>
</tr>
<tr>
<td>Shah and Shin (2007)</td>
<td>Inventory performance is positively associated with financial performance</td>
</tr>
<tr>
<td>Cannon (2008)</td>
<td>Turnover improvement an average had a slightly negative effect on ROA</td>
</tr>
<tr>
<td>Koumanakos (2008)</td>
<td>Among firms belonging to the food, textiles and chemicals sectors only in the sector of chemicals exists linear relationship</td>
</tr>
<tr>
<td>Capkun et al. (2009)</td>
<td>Significant positive correlation between inventory performance and measures of financial performance for firms in manufacturing industries. Raw materials performance has the highest correlation with all financial performance measures. Between work in process and finished goods performance, the former is more highly correlated with gross profit measures while the latter is more highly correlated with operating profit measures</td>
</tr>
<tr>
<td>Kolia et al. (2011)</td>
<td>Inventory turnover ratio is negatively correlated with gross margin and positively correlated with capital intensity and a measure of sales surprise</td>
</tr>
</tbody>
</table>
All the above mentioned studies aim to investigate the relationship between inventory management and firm's profitability during non-crisis periods. To the best of our knowledge, this study is the first that investigates the relationship between firm level inventories and financial performance during crisis periods. In other words, we try to find the answer to the following questions: how SMEs in Greece manage their inventories during the financial crisis? Are there any changes between inventory management performance during the non-crisis period and the crisis-period?

The paper is organized as follows: in the next section we present the research methodology and the data sources used in the analysis. The results are presented and discussed in section three. In the last section, we present conclusions and directions for further research.

Methodology and data collection

The data was extracted from ICAP database containing income statements and annual balance sheets of Greek companies. We use SMEs data for the Epirus region in Greece. We get a data set of 612 companies split up over 18 sectors. We define three main sectors of economic activities in the region, according to the European NACE classification scheme of economic activities based on the number of firms and percentage of total sales. These three sectors represent about 87% of total sales in the region and above 58% of total number of firms, mainly wholesale and retail trade (26,2% in total number of firms in region and 41,2% in total sales), manufacturing (23,2% and 40,8% in total number of firms and total sales respectively) and construction (8,9% and 4,9% respectively).

The current research covers the period of 2003-2012, which gives ten-year period of observations of financial results of selected companies: this period covers five years (2003 – 2007) before the economic crisis in Greece and the first five years of the crisis (2008 – 2012).

The criteria used for selection of the companies are two: 1/. European Commission criteria for small and medium enterprises, 2/. Data available for ten years continuously. We exclude all firm-year observations without data available on inventories and their components, sales, cost of goods sold, net fixed assets and total assets.

As a result we obtained a balanced panel dataset of 612 firms and a number of 6120 firms-years observations. Outlying observations were removed via a 90% winsorization. For all variables, the bottom 5% of the values are set equal to the value corresponding to the 5th percentile, while the upper 5% of the values are set equal to the value corresponding to the 95th percentile.

Our research has three main purposes:

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2 For more information on economic crisis in Greece see Gikas et al. (2012).
Purpose 1. Estimation of inventory turnover trend over the entire period and in two sub-periods in all sectors in the region and in three main sectors. We analyze total inventories turnover and finished goods, work in process and raw materials turnover separately for three main sectors during the non-crisis years and crisis years.

Purpose 2. Evaluation of the elasticity of inventory to sales. We will measure the degree of elasticity as a rate in which inventories change in response to the changes in sale. This measure gives the percentage change in inventories in response to a one percent change in sales (ceteris paribus). Since inventory depends on the level of production and distribution, inventories increase (decrease) because sales increase (decrease). During the period of increasing sales the values lower than 1 mean good signs and improvement in inventory management. When sales decrease the elasticity values higher than 1 are more desired.

Purpose 3. Investigation the relationship between inventories and its elements and firm’s financial performance during non-crisis period and crisis period.

The model used in this study is given below and is based on the variables presented in Table 2.

\[ GM_{j,t} = \alpha + \beta_1 I_{j,t} + \beta_2 Ie_{j,t} + \beta_3 CI_{j,t} + \beta_4 Size_{j,t} + Fir_k + Year_k + \varepsilon \]

where:

- \( j \) is representing the firm and \( t \) the year,
- \( \alpha \) is the constant term,
- \( \beta_1, \beta_2, \beta_3, \beta_4 \) are the coefficients of \( I_{j,t}, Ie_{j,t}, CI_{j,t}, Size_{j,t} \) respectively.
- \( I_{j,t} \) is the measure of total inventory and its components' efficiency (we use \( ITR_{j,t} \) - number of days inventory total turnover of firm \( j \) in the year \( t \), \( RMTR_{j,t} \) - number of days raw materials total turnover of firm \( j \) in the year \( t \), \( WIPTR_{j,t} \) - number of days work in process turnover of firm \( j \) in the year \( t \), \( FGTR_{j,t} \) - number of days finished goods turnover of firm \( j \) in the year \( t \) respectively)
- \( Ie_{j,t} \) is inventory elasticity of firm \( j \) in the year \( t \),
- \( CI_{j,t} \) - capital intensity of firm \( j \) in the year \( t \) and
- \( Size_{j,t} \) - size of firm \( j \) in the year \( t \)

Since GM can be correlated with factors that are omitted in our dataset, we minimize their effects by using firm-specific control variables and time-specific effects. These control variables can be modelled either as fixed effects or as random effects. To test whether fixed effects are present we employ a Hausman test (Baltagi, et al., 2003). \( Fir_k \) denotes the firm-specific effects, which are unobservable effects, constant over time but varying across firms, e.g. differences in accounting policy, managerial efficiency, and \( Year_k \) is year-specific fixed effect for year \( k \), which are unobservable effects constant across firms but varying over time, e.g. interest rates. \( \varepsilon \) indicates the error term for the observations of firm \( j \) in the year \( t \).
Table 2. Variables of the model

<table>
<thead>
<tr>
<th>The Dependent variable</th>
<th>GM</th>
<th>Gross Margin</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Explanatory variables</td>
<td>ITR</td>
<td>Inventory turnover ratio</td>
</tr>
<tr>
<td></td>
<td>RMTR</td>
<td>Raw material turnover ratio</td>
</tr>
<tr>
<td></td>
<td>WIPTR</td>
<td>Work in process turnover ratio</td>
</tr>
<tr>
<td></td>
<td>FGTR</td>
<td>Finished goods turnover ratio</td>
</tr>
<tr>
<td>The Control Variables</td>
<td>Ie</td>
<td>Inventory elasticity</td>
</tr>
<tr>
<td></td>
<td>CI</td>
<td>Capital intensity</td>
</tr>
<tr>
<td></td>
<td>Size</td>
<td>Firm’s Size</td>
</tr>
</tbody>
</table>

Table 3. Calculation of Variables

<table>
<thead>
<tr>
<th>Gross margin</th>
<th>[ GM_{j,t} = \frac{S_{j,t} - CGS_{j,t}}{CGS_{j,t}} ]</th>
<th>GM_{j,t} - Gross Margin for firm ( j ) in period ( t )</th>
</tr>
</thead>
<tbody>
<tr>
<td>S_{j,t}</td>
<td>Sales for firm ( j ) in period ( t )</td>
<td></td>
</tr>
<tr>
<td>CGS_{j,t}</td>
<td>Cost of goods sold for firm ( j ) in period ( t )</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inventory turnover ratio</th>
<th>[ ITR_{j,t} = \frac{avgI_{j,t} \times Days}{CGS_{j,t}} ]</th>
<th>ITR_{j,t} - Inventory turnover ratio for firm ( j ) in period ( t )</th>
</tr>
</thead>
<tbody>
<tr>
<td>avgI_{j,t}</td>
<td>Average inventory for firm ( j ) in period ( t )</td>
<td></td>
</tr>
<tr>
<td>CGS_{j,t}</td>
<td>Cost of goods sold for firm ( j ) in period ( t )</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Raw material turnover ratio</th>
<th>[ RMTR_{j,t} = \frac{avgRM_{j,t} \times Days}{CGS_{j,t}} ]</th>
<th>RMTR_{j,t} - Raw materials turnover ratio for firm ( j ) in period ( t )</th>
</tr>
</thead>
<tbody>
<tr>
<td>avgRM_{j,t}</td>
<td>Average raw material inventory for firm ( j ) in period ( t )</td>
<td></td>
</tr>
<tr>
<td>CGS_{j,t}</td>
<td>Cost of goods sold for firm ( j ) in period ( t )</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Work in process turnover ratio</th>
<th>[ WIPTR_{j,t} = \frac{avgWIP_{j,t} \times Days}{CGS_{j,t}} ]</th>
<th>WIPTR_{j,t} - Work in process inventory turnover ratio for firm ( j ) in period ( t )</th>
</tr>
</thead>
<tbody>
<tr>
<td>avgWIP_{j,t}</td>
<td>Average work in process inventory for firm ( j ) in period ( t )</td>
<td></td>
</tr>
<tr>
<td>CGS_{j,t}</td>
<td>Cost of goods sold for firm ( j ) in period ( t )</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Finished goods turnover ratio</th>
<th>[ FGTR_{j,t} = \frac{avgFG_{j,t} \times Days}{CGS_{j,t}} ]</th>
<th>FGTR_{j,t} - Finished goods inventory turnover ratio for firm ( j ) in period ( t )</th>
</tr>
</thead>
<tbody>
<tr>
<td>avgFG_{j,t}</td>
<td>Average finished goods inventory for firm ( j ) in period ( t )</td>
<td></td>
</tr>
<tr>
<td>CGS_{j,t}</td>
<td>Cost of goods sold for firm ( j ) in period ( t )</td>
<td></td>
</tr>
<tr>
<td>Metric</td>
<td>Formula</td>
<td>Notes</td>
</tr>
<tr>
<td>------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Inventory elasticity   | $I_{e,j,t} = \frac{(I_{j,t} - I_{j,t-1})/I_{j,t} * 100\%}{(S_{j,t} - S_{j,t-1})/S_{j,t} * 100\%}$ | $IC_{j,t}$ - Inventory elasticity for firm $j$ in period $t$  
$I_{j,t}$ - Inventory for firm $j$ in period $t$  
$I_{j,t-1}$ - Inventory for firm $j$ in period $t-1$  
$S_{j,t}$ - Sales for firm $j$ in period $t$  
$S_{j,t-1}$ - Sales for firm $j$ in period $t-1$ |
| Capital intensity      | $Cl_{j,t} = \frac{NA_{j,t}}{TA_{j,t}}$                                  | $Cl_{j,t}$ - Capital Intensity for firm $j$ in period $t$  
$NA_{j,t}$ - Net fixed Assets for firm $j$ in period $t$  
$TA_{j,t}$ - Total Assets for firm $j$ in period $t$ |
| Firm's Size            | $Size_{j,t} = \ln S_{j,t}$                                              | $ln S_{j,t}$ - Natural logarithm of sales                             |

$CGS_{j,t}$ - Cost of goods sold for firm $j$ in period $t$
Analysis, Results and Discussion

Table 4 presents a comparison between the descriptive statistics of the relevant variables for three main sectors for the non-crisis (2003 – 2007) and the crisis period (2008 – 2012) respectively.

Table 4. Comparison of the descriptive statistics for non-crisis and crisis period

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>St. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non-crisis period</td>
<td>Crisis period</td>
</tr>
<tr>
<td>GM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Manufacturing (C)</td>
<td>0.22</td>
</tr>
<tr>
<td></td>
<td>Wholesale (G)</td>
<td>0.21</td>
</tr>
<tr>
<td></td>
<td>Construction (F)</td>
<td>0.26</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>0.29</td>
</tr>
<tr>
<td>ITR</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Manufacturing (C)</td>
<td>171.09</td>
</tr>
<tr>
<td></td>
<td>Wholesale (G)</td>
<td>145.42</td>
</tr>
<tr>
<td></td>
<td>Construction (F)</td>
<td>159.42</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>149.66</td>
</tr>
<tr>
<td>RMTR</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Manufacturing (C)</td>
<td>51.42</td>
</tr>
<tr>
<td></td>
<td>Wholesale (G)</td>
<td>14.00</td>
</tr>
<tr>
<td></td>
<td>Construction (F)</td>
<td>15.44</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>34.79</td>
</tr>
<tr>
<td>WIPTR</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Manufacturing (C)</td>
<td>80.10</td>
</tr>
<tr>
<td></td>
<td>Wholesale (G)</td>
<td>56.28</td>
</tr>
<tr>
<td></td>
<td>Construction (F)</td>
<td>196.19</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>186.42</td>
</tr>
<tr>
<td>FGTR</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Manufacturing (C)</td>
<td>26.58</td>
</tr>
<tr>
<td></td>
<td>Wholesale (G)</td>
<td>9.76</td>
</tr>
<tr>
<td></td>
<td>Construction (F)</td>
<td>49.23</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>29.58</td>
</tr>
<tr>
<td>Ie</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Manufacturing (C)</td>
<td>0.21</td>
</tr>
<tr>
<td></td>
<td>Wholesale (G)</td>
<td>0.28</td>
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<tr>
<td></td>
<td>Construction (F)</td>
<td>-0.60</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>0.10</td>
</tr>
<tr>
<td>CI</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Manufacturing (C)</td>
<td>0.48</td>
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<td></td>
<td>Wholesale (G)</td>
<td>0.27</td>
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<td></td>
<td>Construction (F)</td>
<td>0.30</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>0.45</td>
</tr>
<tr>
<td>Size</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Manufacturing (C)</td>
<td>2.659.6</td>
</tr>
<tr>
<td></td>
<td>Wholesale (G)</td>
<td>3.092.3</td>
</tr>
</tbody>
</table>
For SMEs, inventories represent on average 33% of total assets and 42% of current assets. The mean of total inventory holding periods increased from 149,66 days in 2003-2008 to 175,3 in 2009-2012. The mean work in process turnover ratio increased from 186,42 during 2003-2008 to 217,82 days for the period 2009-2012. Raw materials turnover ratio increased from 34,79 to 41,16 and finished goods slightly dropped from 29,58 to 27,52 respectively. The biggest increase was observed for total inventories turnover measured in days in construction sector (159,42 to 295,36) and among inventories' components for raw materials turnover ratio in construction sector from 15,44 days to 41,53 days.

Our financial performance measure shows a decrease of mean Gross Margin from 0,29 to 0,24, with the biggest decrease in construction sector (from 0,26 to 0,20). Till the end of 2008, the ratio of inventory to sales elasticity mean was 0,10, which means that 1% of increase in sales caused 0,10% increase in inventories. In the construction sector, the value of elasticity in this period was negative, which means that increase of sales was accompanied by decrease in inventories. It denotes effective management of inventories in this sector. As far as the period 2009-2012 is examined, we can observe an increase in the elasticity (mean 0,68), with the biggest increase in construction sector. It has to be mentioned that when sales decrease, elasticity higher than 1 is more desired.

Tables 5, 6 and 7, present the correlation matrix of the model's variables based on Pearson correlation coefficient for total inventories and their components in all surveyed SMEs and the three main sectors in two sub-periods (non-crisis period and crisis period). The results of the correlation analysis for all sectors during the non-crisis period show that the inventory turnover (total and its components) is negatively related to the dependent variable gross margin. There is absence of a significant relation for raw materials days turnover and work in process. It is interesting to note a significant negative relation for finished goods in the case of construction sector. It should be noted also that correlation coefficients of gross margin differ between three analyzed sectors. As far as the two periods are considered, the results show stronger negative relations between gross margin and inventory turnover and its components during the crisis period. The control variables, inventory elasticity, capital intensity and firm's size, show a positive relation with the dependent variable. These results show the possibility to create value through profitability in SMEs by minimizing the levels of inventories. It may also imply that higher capital intensity causes greater value and reduction in inventories.
### Table 5. Correlation matrix, all SMEs, two periods

<table>
<thead>
<tr>
<th></th>
<th>GM</th>
<th>ITR</th>
<th>RMTR</th>
<th>WIPTR</th>
<th>FGTR</th>
<th>Ie</th>
<th>CI</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GM</strong></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ITR</strong></td>
<td>-.034*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>RMTR</strong></td>
<td>-.017*</td>
<td>.476**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>WIPTR</strong></td>
<td>-.023</td>
<td>.915**</td>
<td>.012</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>FGTR</strong></td>
<td>-.097**</td>
<td>.862**</td>
<td>.123**</td>
<td>.028</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ie</strong></td>
<td>.056*</td>
<td>.231*</td>
<td>.034*</td>
<td>.092</td>
<td>.210*</td>
<td>1</td>
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<tr>
<td><strong>CI</strong></td>
<td>.165**</td>
<td>.180**</td>
<td>.008</td>
<td>.089</td>
<td>.182**</td>
<td>.032</td>
<td>1</td>
<td></td>
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<tr>
<td><strong>Size</strong></td>
<td>.043**</td>
<td>.022*</td>
<td>.003</td>
<td>.203*</td>
<td>.067*</td>
<td>.007*</td>
<td>.108</td>
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All SMEs (2003-2007)

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<th>FGTR</th>
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<td>1</td>
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<tr>
<td><strong>RMTR</strong></td>
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<td>.595**</td>
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<tr>
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<td>.066*</td>
<td>.167*</td>
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<td>.048*</td>
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</tr>
<tr>
<td><strong>Size</strong></td>
<td>.024*</td>
<td>.326**</td>
<td>.213*</td>
<td>.021</td>
<td>.039*</td>
<td>.237</td>
<td>.341*</td>
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All SMEs (2008-2012)

### Table 6. Correlation matrix, three sectors, non-crisis period

#### Manufacturing (2003-2007)

<table>
<thead>
<tr>
<th></th>
<th>GM</th>
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<th>RMTR</th>
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<th>FGTR</th>
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<td></td>
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<td></td>
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<td></td>
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</tr>
<tr>
<td><strong>ITR</strong></td>
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<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>RMTR</strong></td>
<td>-.029</td>
<td>.525**</td>
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</tr>
<tr>
<td><strong>WIPTR</strong></td>
<td>-.003</td>
<td>.713**</td>
<td>.252*</td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>FGTR</strong></td>
<td>-.396**</td>
<td>.868**</td>
<td>.112**</td>
<td>.285*</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Ie</strong></td>
<td>-.210*</td>
<td>.201*</td>
<td>.205*</td>
<td>.219*</td>
<td>.230*</td>
<td>1</td>
<td></td>
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</tr>
<tr>
<td><strong>CI</strong></td>
<td>.183**</td>
<td>.190*</td>
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<td>.144*</td>
<td>.168**</td>
<td>.119*</td>
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<td></td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td>.005*</td>
<td>.045*</td>
<td>.322</td>
<td>.112*</td>
<td>.034*</td>
<td>.036</td>
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#### Wholesale and Retail Trade (2003-2007)

<table>
<thead>
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<tr>
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<tr>
<td><strong>RMTR</strong></td>
<td>-.083</td>
<td>.525**</td>
<td>1</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td><strong>WIPTR</strong></td>
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<td>.626*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>FGTR</strong></td>
<td>.380**</td>
<td>.971**</td>
<td>.175**</td>
<td>.142*</td>
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<tr>
<td><strong>Ie</strong></td>
<td>.028</td>
<td>.009</td>
<td>.007*</td>
<td>.029*</td>
<td>-.102</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CI</strong></td>
<td>.040</td>
<td>-.003</td>
<td>.265**</td>
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<td>-.091</td>
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</tr>
<tr>
<td><strong>Size</strong></td>
<td>.324*</td>
<td>.045*</td>
<td>.312*</td>
<td>.002**</td>
<td>-.034</td>
<td>.323</td>
<td>.023*</td>
<td>1</td>
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</table>

#### Construction (2003-2007)

<table>
<thead>
<tr>
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<th>WIPTR</th>
<th>FGTR</th>
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<th>CI</th>
<th>Size</th>
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<tbody>
<tr>
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<td></td>
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</tr>
<tr>
<td><strong>ITR</strong></td>
<td>-.227*</td>
<td>1</td>
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</tr>
<tr>
<td><strong>RMTR</strong></td>
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<td>.424**</td>
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Table 7. Correlation matrix, three sectors, crisis period

<table>
<thead>
<tr>
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<th>RMTR</th>
<th>WIPTR</th>
<th>FGTR</th>
<th>Ie</th>
<th>CI</th>
<th>Size</th>
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<tbody>
<tr>
<td>GM</td>
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<td></td>
<td></td>
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<td></td>
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<tr>
<td>ITR</td>
<td>-0.270**</td>
<td>1</td>
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<td></td>
</tr>
<tr>
<td>RMTR</td>
<td>0.019</td>
<td>0.335**</td>
<td>1</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>WIPTR</td>
<td>-0.004</td>
<td>0.443**</td>
<td>0.233</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>FGTR</td>
<td>-0.276**</td>
<td>0.156</td>
<td>0.102**</td>
<td>0.135</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Ie</td>
<td>0.083**</td>
<td>0.010</td>
<td>0.012</td>
<td>0.111</td>
<td>0.058**</td>
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<td>CI</td>
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<td>0.024</td>
<td>0.176</td>
<td>0.022*</td>
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</table>

**Note:** Variables are defined at the beginning of this section. For every pair of variables, the table provides the Pearson's correlation coefficient, t-Statistic (* p-value<0.1; ** p-value<0.05; *** p-value<0.01)
Table 8. Results of Regression Analysis

<table>
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<th>Independent Variables</th>
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<tr>
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</tr>
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<td>WIPTR</td>
<td>-</td>
</tr>
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<td>FGTR</td>
<td>-</td>
</tr>
<tr>
<td>Ie</td>
<td>.0004* (5.14)</td>
</tr>
<tr>
<td>CI</td>
<td>.0423** (6.03)</td>
</tr>
<tr>
<td>Firms' Controls</td>
<td>Included</td>
</tr>
<tr>
<td>Year Controls</td>
<td>Included</td>
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<td>Adjusted R²</td>
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<tr>
<td>Wu-Hausman Test</td>
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</table>

Note: t-values in parentheses

The coefficient of inventory turnover ratio (in days) is negative and statistically significant at least at 5 per cent level of significance, which means that as inventory turnover ratio (in days) is decreasing, the firm's profitability is increasing.

Conclusions and Recommendations

The study is an attempt to examine the inventory management performance of small and medium enterprises in the region of Epirus, in Greece, during the crisis period. The following measures were used in this study: (1) Inventory Turnover Ratio, (2) Raw Material Turnover Ratio, (3) Work in process turnover ratio, (4) Finished Goods Turnover Ratio, (5) Inventory Elasticity, (6) Gross Margin, (7) Capital Intensity, (8) Firm's Size. The ICAP database has been used for collecting the financial data of SMEs sample. The results of the correlation and the regression analysis with GM as dependent variable, show negative relations between inventories and profitability. This indicates that proper inventory management will improve the management efficiency, which translates into profit growth. It may be obtained by increasing the speed of movement of all types of inventories and lowering costs by reducing inventories' components level. On the other hand, the results show that during the crisis period the relations seem to be lower. The main conclusion is that for both periods, we get negative signs, so firms have to implement the same policy in order to minimize inventories' level.

The main limitation of this study is the fact that it is focused on one region of Greece. In order to understand better the impact of financial crisis on Greek SMEs' performance, the research could be extended by including more regions and more years in the crisis period.
Acknowledgment

This research has been co-financed by the European Union (European Social Fund – ESF) and Greek national funds through the Operational Program "Education and Lifelong Learning" of the National Strategic Reference Framework (NSRF) - Research Funding Program ARCHIMEDES III, "Investing in knowledge society through the European Social Fund".
References


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Business Negotiation Power: How is it Used in the Arabian Gulf?

Alexandre Anatolievich Bachkirov, Sultan Qaboos University, Oman

The European Business and Management Conference 2015
Official Conference Proceedings

Abstract
The attitudes of business negotiators in the Arabian Gulf towards the use of negotiation power were explored through a qualitative interview-based study. Participants included 21 managers from various organizations in the Muscat metropolitan area of Oman for whom negotiation constitutes an essential part of the job. The semi-structured format of the interviews ensured consistency and flexibility in the data collection. The construct of negotiation power was not defined to allow the participants to focus on how negotiation power should be used rather than on what the sources of negotiation power are. The findings revealed four major types of attitudes: a tendency towards an immediate use of power, a tendency towards a delayed use of power, a tendency towards a reluctant use of power and a tendency towards a principled use of power. The attitudes of principled and reluctant use of power were emphasised most and favoured by the majority of negotiators. Analysis of the narratives showed that the principled use of power was related to the negotiator’s concern for economic and psychological outcomes of the counterpart, discreetness in the use of power and the feelings of right and wrong. The reluctant use of power was linked to the strategic preference for trying to build a relationship and trust first and for using persuasive appeals instead of applying power. The implications for the practice of cross-cultural negotiations and negotiation research are discussed.

Key words: power, business negotiation, the Arabian Gulf, qualitative
Introduction

This exploratory study investigates the attitudes of business negotiators in the Arabian Gulf towards the use of negotiation power. While a body of work on negotiation power exists in the West, no systematic, empirical attempts have been made to examine this issue beyond Western contexts, in general, and in the Arabian Middle East, in particular. Redressing this situation is the purpose of the present study.

Understanding the attitudes of business negotiators in the Arabian Gulf towards the use of negotiation power adds an extra tool to the competency skill set for international negotiators. From this viewpoint, the knowledge of how negotiation power is likely to be used creates a competitive advantage for those global organisations who wish to develop sustainable business relationships in the Arabian Middle East. One rapidly developing area with substantial business opportunities is the Gulf Cooperation Council (GCC), comprising Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates. Due to its dynamic growth, the GCC region is attractive to international companies, particularly in such industries as civil engineering, telecommunications and oil and gas. For example, the Plan Abu-Dhabi 2030 includes various infrastructure projects worth over US $400 billion (Davidson, 2009) and has produced intense international competition for contracts. Because of the large cultural distance (Shenkar, 2001), however, industrial and organisational vendors from outside the Arabian Gulf may find themselves at a disadvantage originating from their lack of knowledge about how local business people use negotiation power. Thus, the need to understand the attitudes of business negotiators in the Arabian Gulf towards the use of negotiation power constituted a compelling reason for this study. The present investigation was conducted in Oman, which is regarded as a typical representative of the GCC countries (Moideenkutty & Schmidt, 2011). Oman is an affluent, oil-rich, modern society that strategically follows a course toward economic growth and development while carefully protecting its cultural heritage and belief system (Peterson, 2004). The next section presents the context of the present study in greater detail.

Context

Over the past several decades, Oman has undergone a period of dynamic economic development (Peterson, 2004) that has transformed the country from an isolationist land into a progressive and prosperous monarchy aiming to become an important economic player on the global arena (Aycan, Al-Hamadi, Davis, & Budhwar, 2007). Its active involvement in globalisation and international cooperation are evident in the presence of multinational and transnational corporations and the exposure of the local workforce to international management practices. At the same time, Oman is firmly embedded in traditional Middle Eastern culture. Consequently, organisational life in Oman is influenced by the Islamic traditions, work ethic, and tribal codes of loyalty and honor (Ali, 1992; Robertson, Al-Khatib, Al-Habib, & Lanoue, 2001). A salient feature of organisational life is “sheikhocracy”, a strong, top-down, authoritative structure rooted in personal autocracy and supreme respect for those who make the rules (Kassem and Habib, 1989). It is worthwhile noting though that, while authoritarianism is directed towards “out-groups”, consultation is emphasised with “in-groups” (Common, 2008). Within Western cultural research approach, Oman is described as a collectivistic, high power distance, and high uncertainty avoidance society (Moideenkutty, Al-Lamki, & Murthy, 2011).
The European Business and Management Conference 2015

Theory

As a field of research, negotiation has enjoyed close empirical attention over the last several decades (Bazerman, Curhan, Moore, & Valley, 2000; Carnevale & Pruitt, 1992). Cross-cultural negotiation has recently emerged as a well-defined sub-field of study (Adair, et al., 2004; Brett, 2000; Metcalf, Bird, Peterson, Shankarmahesh, & Lituchy, 2007). However, a notable limitation of the exiting body of literature is that it tends to be rooted in Western values and assumptions (Brett & Gelfand, 2006), which is also true for research on negotiation power (Thompson, 2000).

When negotiation is defined as a decision-making process aimed at reaching an agreement on allocating scarce resources (Thompson, 2005), the issue of negotiation power becomes particularly salient. Supposedly, the bigger one’s negotiation power, the more value one could extract from a negotiated agreement (Kim, 1997) by influencing the decisions of the counterpart.

Contemporary notions of power can be conceptually traced to the definition originally suggested by Weber (1947), who viewed power as one’s capacity to control people, events and resources despite opposition, obstruction and/or resistance. Later, seminal studies by French and Raven (1959), Kipnis, Schmidt and Wilkinson (1980) and Emerson (1962) substantially advanced the conceptualisation of power. Specifically, French and Raven posited that power can originate from five different sources: position of authority (legitimate power), the threat to inflict punishment (coercive power), the offer or denial of rewards (reward power), identification or affiliation (referent power), knowledge and expertise (expert power). Kipnis and collaborators (Kipnis et al., 1980; Kipnis & Schmidt, 1983) and later Yukl and Tracey (1992) examined power tactics used to attain compliance with requests. The power tactics identified through their research are pressure, exchange, coalition, legitimation, ingratiation, consultation, personal appeal, rational appeal, and inspirational appeal. Lastly, Blau (1964) proposed a theory of power relations known as the “Power-Dependence Theory” that brings together the notions of power, power structure, authority and legitimacy. According to Blau (1964), the degree of one’s power over the other is determined by the extent of the latter’s dependence on the former.

In the realm of negotiation research, Fisher (1983) advanced a taxonomy of negotiation power incorporating six elements: the power of skill and knowledge, the power of a good relationship, the power of a good alternative to negotiating, the power of an elegant solution, the power of legitimacy, and the power of commitment. Some other noteworthy research programs that investigated power in negotiations are those conducted by De Dreu and Van Kleef (2004), Lytle, Brett and Shapiro (1999) and Wolfe and McGinn (2005). Applying the findings of power research to dynamics in negotiation, Kim, Pinkley and Fragale (2005) recently integrated the most influential theories of power to develop a comprehensive theoretical model comprising four components: potential power, perceived power, realised power and power tactics.

Despite an array of concerted scholarly efforts, extant research is silent on the issue of whether having negotiation power automatically triggers the use of this power. Speculatively, the answer is “yes”, given the assumption that “the relatively high-power party is likely to have his or her interests addressed during a negotiation, while the interests of the lower-power party may be ignored” (Wolfe & McGinn, 2005:3). The present investigation tests this assumption by
exploring the attitudes of business negotiators in the Arabian Gulf towards the use of negotiation power.

Method

This study is based on qualitative methodology. Qualitative data were obtained by semi-structured interviews, which ensured flexibility and consistency in the data collection process. The interviews, including their planning, preparation and conducting, were a partial credit requirement for a university course project. Students interviewed Omani managers who negotiate regularly as part of their role. The interviewers followed an interview guide that assisted them in conducting the discussion. The interview guide was designed around such topics as competitive and collaborative negotiation, concession making, power and influence, communication and trust and relationship building. Strategically, negotiation power as a construct was not defined for the participants to encourage them to reflect on how they use negotiation power rather than on what the bases of negotiation power are.

The interview process emphasised anonymity and confidentiality in participation to ensure openness of the interviewees and their willingness to cooperate. Most interviews were digitally recorded with the interviewees’ consent. The interviewer took in-depth notes when interviewees were unwilling to have the interview recorded. Twenty-one interviews were conducted, transcribed verbatim and thoroughly examined for relevant themes and topics. This study reports on the themes that emerged in relation to the attitudes of Omani business negotiators towards the use of negotiation power.

Results

Four thematic categories emerged during the interview data analysis: a tendency towards an immediate use of negotiation power, a tendency towards a delayed use of negotiation power, a tendency towards a principled use of negotiation power and a tendency towards a reluctant use of negotiation power.

Replying to the question “If you feel that you have more power in a negotiation situation, do you use this power straight away, or only as a last resort?” one negotiator asserted:

Yes, I use it straight away to … show them that I am the decision maker.

This dominating orientation was further confirmed by another manager who illustrated his point in the following way:

You want the price of the equipment to be lowered but the agent refuses. I will use my power by telling them if they do not come down I will go somewhere else where there are many suppliers for the same product and I have the power to change the supplier at any point of time.
Some of the interviewed managers, however, confessed their preference for a delayed use of negotiation power. As one interviewee elaborated:

*If I felt myself having a strength point over the other side, I would use my power as a last resort. For example, if I wanted to buy a stock of wood from a supplier at the time when there are other suppliers who can provide me with the same quantity or with even better quality, I wouldn’t threaten him. Instead, I would convince him that the deal is in his best interests. However, if I see that he is still refusing to accept my conditions, then I would use my strength point as a last resort.*

An attitude that is conceptually related to a delayed use of negotiation power can be denoted as reluctant use of power. Two subcategories of this attitude were related to the preferences for convincing rather than dominating and for building trust and long-term relationships. This is evident from the following comment:

*If I have negotiation power, I’d prefer to use it as a last tool. In the first stage, I want to see my other skills in convincing people. Sometimes power cannot work with all people but, if a person has a convincing tool this will help him or her to avoid using power unnecessarily. Thus, we have to focus on how to improve our convincing skills and tools and forget about power.*

The motivation to invest in trust building and to establish sustainable business relationships was another underlying reason for the reluctant use of power. Explaining his reluctance to use power in negotiations, one manager reasoned:

*We need to make the customer loyal and build trust between us so that he comes back to us again and again.*

In a similar vein, another negotiator amplified that idea:

*You could throw your first bunch, “These are my demands, take it or leave it. I’m going to have a cup of coffee.” But then you don’t want to do it the hard way because you still need them in the long run as your partners and they will grow with you.*

Interestingly, a tendency towards a principled use of negotiation power emerged as an attitude favored by most interviewed managers. The three dimensions of the principled use of power were associated with the negotiator’s concern for the counterpart’s economic and psychological outcomes, discreetness in the use of power and the moral feelings of right and wrong. The driving motivation for these attitudes was often grounded in the expectation of being able to build a solid and lasting business relationship. Expressing a desire to help the counterpart to reach their negotiation goals, one manager pointed out:

*When I negotiate, I use my power but I never make the other party lose. I make them feel happy about the goal and I focus on the long term relationship. … I use my negotiation power in some situations but I don’t like the other party to think that he will lose. Even if I am winning I want the other party to be happy and that happened many times. The reason behind this is that I want them not only for one year, I want a long-term relationship.*
Demonstrating a similar concern for the counterpart’s outcomes, another negotiator elaborated:

>You should have the power to show him up. But although you have it, you should make
him happy. Your price may be high but then you use that money to really deliver a project
to his full satisfaction. He will say, “OK, you have delivered on time, done a very good
quality job for me and I am happy”.

Discreetness emerged as the second dimension being related to of a principled use of power. One negotiator described how he tries to make sure the other party does not feel that power is being applied on them:

> In business if we have now a company and we are 90% of their income, by default we are
important to them. By default, if we close our business with them, they are gone. The
reason behind my being polite in presenting my power to them is that we want them to be
comfortable in the negotiation.

The third dimension of principled use of power is associated with the moral feelings of right and wrong towards using negotiation power. One manager felt very strongly about the morality of using power in negotiations. In her view:

> ... *it's wrong* [emphasis added] to make the other party feel – from the beginning or from
the first meeting – that you have power. This is not negotiation because the negotiation is
a way of two sides, not one side.

**Discussion**

The findings of this exploratory study revealed four major types of attitudes: a tendency towards an immediate use of power, a tendency towards a delayed use of power, a tendency towards a reluctant use of power and a tendency towards a principled use of power. The attitudes of principled and reluctant use of power were emphasised most and favoured by the majority of negotiators. Analysis of the narratives showed that the principled use of power was related to the negotiator’s concern for economic and psychological outcomes of the counterpart, discreetness in the use of power and the moral feelings of right and wrong. The reluctant use of power was linked to the strategic preference for using persuasive appeals instead of applying power and for trying to build a relationship and trust as a foundation for future business transactions.

Although different conceptualisations of power exist, the content of the construct of negotiation power was not imposed on the participants to allow them to focus on how negotiation power should be used rather than on what the sources of negotiation power are. This strategic methodological decision resulted in a successful elicitation of a variety of attitudes towards the use of negotiation power. Overall, the assumption that the possession of negotiation power is automatically translated into the use of negotiation power emerged as being reductionist and simplistic. A preponderant view among the interviewed managers was that the use of negotiation power should be avoided in the interests of maximising joint outcomes and building a sustainable business relationship.
The findings reported in this study have important managerial implications. For example, negotiation practitioners involved in cross-cultural and international negotiations should consider potential differences in the attitudes towards the use of negotiation power of their overseas counterparts. As this study suggests, negotiators in the Arabian Middle East favor reluctant and principled use of negotiation power. Therefore, those international traders and marketers who choose to employ their negotiation power in a direct, immediate or forceful fashion will likely fail to secure a contract. The present research contributes to the literature on negotiation by enhancing our understanding of cross-cultural differences in negotiators’ attitudes towards the use of power.
References


Multidimensional Performance Measures as Inductors of the Adoption of Best Practices and the Achievement of Projects’ Goals

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Hugo Roth Cardoso, Brazilian Micro and Small Business Support Service, Brazil
Pedro Beck Di Bernardi, Beck Gestao Empresarial, Brazil

Abstract
“Sebrae at your doorstep” is the program designed by SEBRAE, the Brazilian Micro and Small Business Support Service, to approach companies offering basic management tools and its catalogue of business solutions. In 2014, it was executed in 24 states of Brazil, reaching 451 thousand companies. The program’s responsibility assignment matrix describes the duties of the states that execute the program and those of the national SEBRAE body that establishes and observes the employment of standardized guidelines. Given these characteristics and the heterogeneity of the environments in which the projects operate, the coordination of the program designed a multidimensional set of performance measures – called the Thermometer of Excellence – to encourage the adoption of best practices and the national guidelines by each of the states. Through a regression using the ordinary least square estimator, this paper confirms that the adherence to the framework of performance measures is an effective instrument to the accomplishment of qualitative goals – the application of the solutions indicated on the consultancies and the overall satisfaction of the participating small businesses. The results also indicate that the Thermometer is an effective inductor of the adoption of the national guidelines and the desired best practices in the program execution by the state managers. This corroborates the strategic notion of performance measures as a valid instrument to pursue primary objectives and promote alignment of management processes.

Keywords: performance measure system, multidimensional performance measures, project management, management alignment, small business, key performance indicators.
Introduction

Measuring performance is a strategic operation that has the potential to generate key information for the management of organizations and projects. Through this function, the organization obtains indicators that demonstrate how it is performing in relation to its established goals and objectives. Thus, it can measure and assess its effectiveness and its capacity to address stakeholders’ (Callado et al, 2008) needs, as well as to engage in corrective and preemptive actions when applicable.

Management literature provides a wide range of performance measurement processes. According to Mills et al (2003), these models have been developed as a collective effort by academics and professionals. In the same line of reasoning, Rutkowski (2001) and Oliveira (2007) point that once the theoretical models are adopted by organizations they adapt to their specific environments and provide feedback for improvement in the referential framework, following the concrete inputs of their operationalization.

The objective of this article is to analyze the effectiveness of the Thermometer of Excellence – a performance measure system employed as a monitoring tool to investigate qualitative aspects in the management of programs of managerial assistance to small businesses.

The Thermometer of Excellence was first applied by SEBRAE (Brazilian Micro and Small Business Support Service) in 2014 for the management of the Program “Sebrae at your doorstep” – see Appendix I for a detailed description of the program. SEBRAE is a Brazilian non-profit private entity with the mission of promoting the sustainable and competitive development of small businesses. SEBRAE has more than 600 physical points of service distributed along the 27 states of Brazil and the federal district.

Amongst the models of performance measurement that conceptually relate to the Thermometer are the Balanced Scorecard (BSC), designed by Kaplan and Norton (1992), and the framework of the European Prize Excellence Model. Its conception also considered the characteristics of the macro environment in which it is inserted: (1) concern with the final result of the program; (2) high level of autonomy of the actors involved; (3) different spheres of executions (national, state, local); (4) heterogeneity of the environments in which each of the 24 states that ran the program in 2014 operate.

The main objectives of the Thermometer in regards to the program are the measurement of its qualitative objectives and the encouragement of its participants to adopt desired managerial actions. It is situated within the effort to complement the previous orientation mainly focused on the accomplishment of quantitative goals. It was implemented by SEBRAE as an initiative to promote the focus on quality amongst the program’s stakeholders.

As a multidimensional performance measure system, the Thermometer is structured in four perspectives: project, management, tutor and agent (Business Orientation Agent, or AOE, in its original acronym).
The following section, Theory and Hypothesis, presents the theoretical reference in which the Thermometer is conceptually based. It brings a historical perspective surrounding the topic of performance measure systems, how it evolved and the main arguments that the theory provides to support the use of multidimensional performance measures. More importantly, this section relates these theoretical foundations to the conception and application of the Thermometer, putting forward the hypothesis that it is an effective instrument to achieve qualitative goals and encourage the observance of desired managerial practices.

The section of Methodology and Results, present the strategy used to measure the effectiveness, the construction of econometric model and the regression technique used (ordinary least square) to test the proposed hypothesis.

Finally, in the Conclusion section, the results are critically contrasted with the theoretical arguments and the implications and recommendations for future research are discussed.

**Theory and Hypothesis**

Performance measures produce strategic data and information for the good management of organizations and projects. An Indicator is the unit that quantifies the visible form of this measurement. Takashima (1999) defines indicator as “quantifiable representations of the characteristics of products, services, processes and projects. This article uses the SGMP’s (2009) definition of Indicator as “metrics that provide information about the performance of an object”, aiming at controlling, communicating and improving management. In other words, indicators measure results and manage performance.

Simply establishing and monitoring indicators, however, and according to Marchesan (2005), is not sufficient to clearly assess the functioning of an organization or project. Management literature has coined the expression KPI (key performance indicator) to portray the indicators constructed and applied under these premises (Venkatraman and Ramanujam, 1986). Souza (2014) points that KPIs make sense when they are measured and scrutinized together, generating a privileged view of the processes. When randomly grouped and unstructured KPIs do not represent a system and are counterproductive to interpreting reality.

The systemic characteristic is a key feature of performance measures. We follow Neely (1995) and Corrêa and Corrêa (2006) that argue that a system is a coherent group of KPIs. Macedo-Soares and Ratton (1999) extend this concept, arguing that systems must encompass people, processes, methods and tools in order to generate strategic information.

The concept of performance measure systems is widely referenced in academic journals, what illustrates its relevance in the field of management. Its evolution has been based on its breakdown of features in structural dimensions, containing non-financial, internal and external measures, as well as the traditional financial measures (Mills et al, 2000; Esposto, 2001; Bourne et al, 2003; Attadia, 2003).
The shift started in the end of the 1970s when several authors expressed dissatisfaction with the traditional accounting models (Mills et al, 2000). This trend, according to Bourne et al (2003), identified the main deficiencies of the performance measures at that time: (1) incentive to short-term analysis; (2) lack of strategic focus; (3) didn’t focus on the external environment; and (4) didn’t encourage continuous evolution.

In the 1980s and 1990s, the dissatisfaction promoted the development of balanced systems that were coined as multidimensional (Esposto, 2001). These new systems addressed the limitations previously identified, as it comprised: non-financial aspects, measurement of external environment, and consideration of historical performance and projection to future goals, promoting the continuous evolution.

This movement unchained academics and professionals to develop tools in order to elaborate measure systems relevant to organizations fulfilling its potential to generate strategic information.

In the evolution demonstrated by Bouckaert and Halligan (2008) the systems have advanced from a point of absolute lack of strategic alignment with the organization and absence of monitoring mechanisms, to an intermediate position where the “governance of performance” was established. It culminates with the current framework characterized by the systemic nature of KPIs and its integration to the governance networks within the organization and transparent and efficient methods of monitoring.

Another relevant point of these modern models of performance refers to how the KPIs are grouped. According to Souza (2014), they must be combined according to their similarities, for example: who is responsible, in what stage it is executed, where it is situated in the value chain.

The base for the conception of a measure system lies within the foundations that the theory offers. The current view of systems encompass the notion of the provision of a basic framework from which organizations can build their own and specific systems. Rutkowski (2001) points to this argument, claiming that the models “don’t prescribe a management form, but indicate the necessary perquisites to achieve excellence”.

Influence of the Balanced Scorecard and the European Prize Excellence Model

The BSC model comprises four perspectives: one financial and three non-financial (clients, internal processes and learning and growth). The model suggests a structure that assists the translation of business strategies into detailed actions.

The Thermometer of Excellence assumed a similar dynamic in its conception, with prompt inputs and adaptations, carried out after the stage of mapping the activities and critical points of the program, as suggested by the BSC’s methodology.

As for the European Prize of Excellence Model (EFQM), it is recognized by Buccelli (2013), FNQ (2013), Barbosa (2008) and Ferreira (2003) as the state of the art in terms of practices and international recognition. This is in line with Jensen and Sage’s
assertion that these prizes reflect the most current concepts in the performance measures literature.

The Figure 1 portrays the model designed by the EFQEM and its systemic feature. It is composed by nine dimensions: the five disposed on the left represent the enablers (leadership, people, strategy and partnerships and resources) and the four on the right the Results’ dimension (people, customer, society and business results). This model addresses the concerns of Bourne et al (2003), as it intrinsically encourages learning, creativity and innovation as a natural dynamic of the model.

![Figure 1. Source: EFQM (2015)](image_url)

In an analysis of the Thermometer, there are robust conceptual resemblances with the framework of the EFQM. In its body, there are elements that particularly refer to its dimensions of:

1) Leadership: “state manager is exclusively dedicated to the program” and “state manager monitored feedback report through the system”;
2) People: “tutor took part in the training of the tutor's methodology” and “the agent was approved in a 76 hours training with methodology developed by SEBRAE Nacional”;
3) Strategy: “project proposal follows structure recommended” and “state manager weekly analyzes performance indicators and propose action plans to correct deviations”;
4) Partnerships: “the announcement of the "call for professionals" included visits to universities or other institutions that might supply workforce for the program”.

The Brazilian version of the prize, The National Prize of Quality (PNQ, in the official acronym) was inspired in the EFQM. It is also structured in dimensions (eight in this case) and was constructed under the Excellence in Management Model – MEG approach (FNQ, 2015). This framework is based on the concept of continuous improvements and publicity and dissemination of best practices. Hence, as in the European reference, the dynamics of the Thermometer also bears similarities with the PNQ.
The conception of the multidimensional measures of the Thermometer of Excellence

The Thermometer was conceived taking into account the internal and external macro environment in which it is inserted, following Kaplan and Norton (1997 e 2010) and Gee (2008). The features of high level of autonomy by the local managers, different spheres of execution, the heterogeneity of the environment in which small businesses operate and the necessity of a large scale training and supervision of local agents have risen the need to develop a multidimensional measure system.

This system was complemented by a comprehensive account of the responsibilities of the multiple actors involved in the program, as highlighted by Gonçalves (2002), through a RACI (Responsible, Accountable, Consulted, Informed) Matrix, attribute.

Founded on the main features of the environment and adherent to the conceptual architectures described, the Thermometer was created as a multidimensional performance measure system with four perspectives (or dimensions):

1. Project: questions related to the conception, structure and guidelines. KPIs: indicate the degree of observance of the national guidelines, deadlines, use of financial and human resources and agents’ training;

2. Management: questions related to the role of state manager: KPIs: evaluate managerial procedures, manager’s dedication and intensity of monitoring of the other actors.

Although the National SEBRAE elaborates and establishes standard methodologies, rules and guidelines, its enactment is limited to encouraging the “what to do”, since there is no hierarchical influence on the state managers. As advocated by Barbosa (2008) and Martins (1999) they possess, as executors, a high degree of independence on the “how to do”. The KPIs, in this sense, would function as a tool to encourage desired behaviors, offering the individuals (state managers in this case) directions to achieve the objectives of the program (FNQ, 2009; Vieira, 2005). The questions in this section represent the desired good practices observed throughout the execution of the program in previous years. They offer guidance in which the state managers can rely on.

3. Tutor: questions related to the responsibilities of the tutor and his/her supervision of the agents and the compliance to the national guidelines. KPIs: execute and evaluate the visits of the agents to the small businesses, execute and follow procedures of the planned meetings with agents, analyze the meeting of deadlines of visits and applicability of solutions offered.

4. AOE: questions related to the performance of the agents and his/her level of compliance to national guidelines. KPIs: evaluate the following of the methodology and guidance when approaching and attending the small businesses, evaluate the applicability of the solutions recommended and implementation of basic managerial orientations provided.

The grouping in these four dimensions sought to thematically combine the executors of each action and design KPIs accordingly, in an easy-to-follow manner. This arrangement was based upon two aspects. First, a transparent and comprehensive set
of responsibilities of the actors involved (Gonçalves, 2002). Secondly, a system that fosters communication and promotes engagement with the participants of the program (Martins, 1999).

**Balancing the (de)centralization of the measure system**

In the end of the 1980s, international institutions such as the United Nations and the World Bank started to advocate in favor of the decentralization of project management (Tobar, 1991). In 1983, the seminal publication of G. Shabbir Cheema e Dennis A. Rondinelli titled *Decentralization and Development* (1983), argues in favor of decentralizing project management in order to

1) Reduce the negative effects of bureaucracy;  
2) Respect local priorities and needs;  
3) Provide wider representativeness in decision-making;  
4) Increase institutional stability;  
5) Increase efficiency in its operation; and  
6) Reduce costs.

This decentralization is incorporated in the core of the program “Sebrae at your doorstep” and is embodied in the Thermometer of Excellence.

On the other side, in order to maintain the national status of the program, there is the need to incorporate a certain degree of centralization. In this manner, it is the National SEBRAE, without local adaptations, that defines the structural guidelines, methodology and institutionalizes of best practices.

This decision came from the realization of the potential risk the heterogeneity of scenarios of each state may pose to the program. Each state is sovereign to assemble its management structure, to define the profile of the executors and to respond to the stakeholders that may have differing perquisites, expectations and needs according to where the program runs.

The Thermometer is a managerial tool to mitigate this risk, once it establishes the desired outcomes to address the most critical points. The instrument conveys the balance between centralization and decentralization of managerial decision-making.

Because of its national reach the environment in which each state operates differs significantly, which characterizes the execution of the program as highly heterogeneous in terms of organizational culture, profile of actors involved and small business approached. Consequently, the Thermometer’s purpose goes beyond the inducing of the adoption of best practices. It provides a detailed guide step-by-step on how to manage the program.

This paper hypothesizes that the Thermometer of Excellence, designed following the frame of reference outlined about performance measure systems, is a managerial instrument effective to the:

(a) Achievement of qualitative goals of applicability of solutions and satisfaction of small businesses; and  
(b) Encouragement to observe national guidelines and desired best practices while implementing and executing the program locally.
Method and results

The methodology to evaluate whether the Thermometer has fulfilled its objectives consists of the construction of an econometric model to test the effect of the Thermometer’s result on the qualitative goals of the program. The estimator used in the regression was the ordinary least square.

The population of the study comprises results of twenty-two of the twenty-four states that participated in the program. Data from two states were dropped because these states started the program in the second semester of the year thus could not be evaluated.

The dependent variable was constructed as the Sum of the following measures:
1. Percentage of businesses that applied at least one of the solutions recommended by the agents is higher than 80%;
2. The applicability of the non-autonomous (excludes didactic material provided to the businesses) solutions recommended by the agents is higher than 20%;
3. The average satisfaction of the businesses visited, in a scale of 1 to 10 is superior to 8.

Initially, the result of the consolidated result of the thermometer was contrasted with the percentage of the physical execution of the program, the percentage of companies visited in regards to the established goal. The result of the regression was not significant. This indicates that there is no direct relationship between the achievement of quantitative goals and the result of the Thermometer.

This result reinforces the perception that the quantitative objects are not necessarily dependent on the managerial instruments and abilities of the program. They can be subjected to and influenced by exogenous factors such as the dimensioning of the goals, local priorities and strategies not necessarily related to the quality on management.

Consequently, there was created a model with the consolidated result of the thermometer (TerCon) as the independent variable. As variables of statistical control of the eventual bias of the equation, there were employed those that may have influenced the result of the thermometer:

Value per company (ValCom): each state has a financial limit to propose its budget. This variable was constructed dividing the total budget of the project by the quantity of businesses that were visited in 2014. This average is expected to impact positively on the dependent variable, as, in theory, the more financial resources allocated to the project, the higher its impact on the project.

Average quantity of businesses per agent (ComAgent): this variable was constructed dividing the total quantity of businesses visited in 2014 by the quantity of agents that effectively worked throughout the year. It is expected that the lower the average, the higher the dependent variable, as the agents were able to provide a more personalized service to the businesses.
Average quantity of agents per tutor (TutAgent): this variable was calculated dividing the total quantity of the agents by the total quantity of the tutors that effectively worked in 2014. It is expected that the lower the average, the higher the dependent variable, as the tutors would have provided a better supervision and more personalized assistance to the agents, therefore contributing to his better approach of businesses.

Table I presents the results of individual correlations and descriptive statistics of the variables in the model.

### Table I – Descriptive statistics and individual correlations

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Correlation matrix</th>
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<tbody>
<tr>
<td>Result</td>
<td>42,60</td>
<td>30,18</td>
<td>0,00</td>
<td>80,00</td>
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<tr>
<td>TerCon</td>
<td>0,77</td>
<td>0,18</td>
<td>0,24</td>
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<tr>
<td>ValCom</td>
<td>244,16</td>
<td>39,50</td>
<td>139,90</td>
<td>290,80</td>
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<tr>
<td>ComAgent</td>
<td>231,02</td>
<td>82,67</td>
<td>88,20</td>
<td>354,70</td>
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<tr>
<td>TutAgent</td>
<td>0,13</td>
<td>0,45</td>
<td>0,10</td>
<td>0,20</td>
<td></td>
</tr>
</tbody>
</table>

Notes: a) denotes significance at the 99% level of confidence; b) denotes significance at the 95% level of confidence.

Variables: Result – dependent variable; TerCon: consolidated result of the thermometer; ValCom: average amount of the budget per company; ComAgent: average quantity of companies per agent; TutAgent: average quantity of agents per tutor.

Individually there is only one significant direct relationship amongst the variables in the model. It is a positive association between the dependent and independent variable. This indicates that the higher the result of the Thermometer, the higher the number that represents the achievement of the finalist goals.

Table II presents the result of the regression. The model’s specification is significant in the level 99% level of coefficient (Prob. > F = 0,015) and a robust $R^2$ of 0,4965.

Complementarily, there were applied statistical tests to verify potential mal specification of the model. The VIF (variance inflation factor) multicollinearity certifies the absence of exact lineal relations in the equation, what would compromise the integrity of the results. The result was negative with an average of 5,36. The Breush-Pagan/Cook-Weisberg heteroskedasticity test was also executed to measure the eventual bias in the distribution of the variables what would weaken the use of the ordinary least square estimator. The result was also negative (Prob > Chi$^2$ = 0,45). Both results corroborate the robustness of the model.

### Table II – Regression results
Despite the overall significance, there was only individual coefficient statistically significant at least at the 95% level of confidence. It was the consolidated result of the thermometer, which is significantly positive at the 99% level of confidence. This indicates a positive relationship between this variable and the achievement of the qualitative goals, a result that is similar to the one of the individual correlations.

There can be argued, therefore, that the result of the Thermometer positively influences the achievement of the qualitative goals of the project. It is considered, thus as an effective inductor instrument to influence autonomous project managers to adopt desired management practices in the execution of the program.

Exploratory, this study also ran regressions using the result of each dimension as the independent variable. Table III presents results these results for the dimensions of project (TerPro), management (TerMan), tutor (TerTut) and agent (TerAge).
Table III – Result regress with the dimensions as independent variables

<table>
<thead>
<tr>
<th>Statistics</th>
<th>TerPro</th>
<th>TerMan</th>
<th>TerTut</th>
<th>TerAge</th>
</tr>
</thead>
<tbody>
<tr>
<td>R²</td>
<td>0,5799</td>
<td>0,2422</td>
<td>0,4026</td>
<td>0,75</td>
</tr>
<tr>
<td>F</td>
<td>5,89 a</td>
<td>1,36</td>
<td>2,86 b</td>
<td>13,04 a</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Variables</th>
<th>Ind variable</th>
<th>ValCom</th>
<th>ComAgent</th>
<th>TutAgent</th>
<th>_Constant</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>86,69 a</td>
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<td>0,00</td>
<td>-151,74</td>
<td>88,57</td>
</tr>
<tr>
<td></td>
<td>-4,71</td>
<td>-0,79</td>
<td>-0,10</td>
<td>-0,53</td>
<td>267,00 b</td>
</tr>
<tr>
<td></td>
<td>97,36 b</td>
<td>-0,08</td>
<td>0,02</td>
<td>-180,37</td>
<td>-2,07</td>
</tr>
<tr>
<td></td>
<td>83,65 a</td>
<td>-0,15</td>
<td>0,00</td>
<td>11,67</td>
<td>29,07</td>
</tr>
</tbody>
</table>

Notes: a) denotes significance at the 99% level of confidence; b) denotes significance at the 95% level of confidence.

The regression points that three of the models are significant. The project and the agent dimensions at the 99% level of confidence and the tutor dimension at 95%. The result of the management dimension was not significant. As for the individual results, the independent variables (represented by the dimensional result) behaved exactly as the “F”, significant and positive for the project, tutor and agent dimensions.

This result indicates that, in average, the questions are well combined in the dimensions, as three out of the four resembled the results of the consolidated Thermometer’s result. There can also be interpreted that individually, as each dimension is grouped by questions directed to a specific actor, the dimensions induce these actors’ behavior towards the accomplishment of the qualitative goals through the adoption of the desired actions as planned by the design of the Thermometer.

**Discussion and conclusion**

This paper has confirmed that the adherence to the framework of performance measures constructed is an effective instrument to the accomplishment of qualitative goals – application of the solutions indicated on consultancies and overall satisfaction by the companies visited.

The results also indicate that the Thermometer is a valid inductor of the adoption of the national guidelines and desired best practices in the implementation of the program by the state managers. This corroborates the strategic notion of performance measures as a valid instrument to pursue primary objectives and promote alignment of management processes.

The Thermometer’s framework resembles conceptual similarities with the state of the art references in performance measures systems: the Balanced Scored Card model and the European Prize of Excellence Model. This indicates that these references proportionate a valid guideline to the design of performance systems to a broad range of organizations or projects, considering that the specific realities and environments are adapted.
The results also confirmed the theoretical proposition that multidimensional measurement systems, when elaborated and applied strategically and instrumentally, as was the Thermometer of Excellence, can lead to the achievement of primary objectives (usually quantitative goals) and to the promotion of management processes alignment.

As an exploratory analysis, the results are valid to enrich the debate about the measurement models effectiveness using the concept of multidimensionality. To a general statistic inference, notwithstanding, it’s necessary the use of longitudinal data that allow the use of the panel data regression technique, what can be made from a data base with, at least, two years of occurrences.

For being about a new system, a few questions can obtain maturity, as the inclusion of a specific perspective (or dimension) for the results. This would promote: (i) an interference in the thermometer design; (ii) a reformulation in the indicators disposition and aggregation; (iii) and alterations in the punctuation system and the weighting between the indicators.
References


Contact email: melotiago@hotmail.com
Appendix I – “Sebrae at your doorstep”

“Sebrae at your doorstep” is the program designed by SEBRAE, the Brazilian Micro and Small Business Support Service, to approach companies offering basic management tools and its catalogue of business solutions. In 2014, it was executed in 24 states of Brazil by 1600 business orientation agents – supervised by 300 senior consultants – having reached 451 thousand companies.

The program operates as a customized and continuous assessment, support and orientation program for individual entrepreneurs and micro businesses. It consists of up to two cycles of three in loco visits carried out by specifically hired and trained professionals. Each cycle runs through a period of approximately 90 days, necessarily within a year. Each of the visits has a predefined script and precise goals. The overall objective of the program is to improve the competitiveness of small businesses through the personalization of the basic managerial tools supplied and the products and services recommended.

The first visit consists of the presentation of the program’s methodology followed by the response of a questionnaire, guided by the agent, intended to depict the current level of the entrepreneur in regards to his management skills. In the second visit, the agent brings in a set of individualized suggestions, validated by a senior consultant, of SEBRAE’s products and services – such as workshops or online courses – based on the needs assessed on the questionnaire, as well as basic managerial orientations. Finally, in the third visit, the agent verifies the implementation of the solutions offered. Most businesses trail on to a second cycle in the following year, with a replication of the dynamics of the three visits of the first cycle.

The underlying premise of the program is that the provision of better and personalized access to managerial tools and practices will improve the entrepreneur’s knowledge of business practices. As a result, he will systematically apply these techniques in his business, culminating in its increasing competitiveness. The reliance on the guided questionnaire to capture the business’ current level of development is a key factor to build up the individualized recommendations – both business solutions and managerial basic orientation.

The program executed by four main actors:

- **National SEBRAE:** provides financial resources for all participant states (in 2014, the budget was approximately 108 million brazilian reais); provides guidance and technical support; establishes, reviews, oversees and improves the guidelines and methodology; monitors the financial and technical execution.

- **State SEBRAE:** coordinates the program in its respective state. Hires, trains, pays and monitors tutors and agents. Monitors financial and technical execution locally. In 2014 there were 24 states operating the program. They report to the National SEBRAE.

- **Tutor:** directly supervise the work of the agents and their approach to the companies, enforce the use of the methodology and review all the solutions to be offered to the companies. The tutors offer senior guidance and continuous training to the agents. In
2014 there were approximately 300 tutors working on the program. They report to the local SEBRAE.

- Business Orientation Agent (AOE): executes the program. Visits companies, analyzes their questionnaire results and propose solutions accordingly. The agents are constantly being trained and recycled on SEBRAE’s business solutions and managerial techniques to apply on the visits. In 2014 there were approximately 1600 agents working on the program. They report to the tutors and the corresponding State SEBRAE.
## Appendix II – Thermometer of Excellence and its Application

<table>
<thead>
<tr>
<th>Question</th>
<th>Evidence</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Management</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State manager is exclusively dedicated to the program</td>
<td>System</td>
<td>20,00</td>
</tr>
<tr>
<td>State manager performance's target is to obtain a result of at least 80% in this thermometer</td>
<td>System</td>
<td>30,00</td>
</tr>
<tr>
<td>State manager conducted in loco planned visits*</td>
<td>Monitoring report</td>
<td>30,00</td>
</tr>
<tr>
<td>State and/or regional manager conducted meetings with the tutors*</td>
<td>Minutes of the meeting</td>
<td>20,00</td>
</tr>
<tr>
<td>State manager monitored feedback report through the system*</td>
<td>Print of 4 feedback reports per week</td>
<td>10,00</td>
</tr>
<tr>
<td>Regional manager conducted in loco planned visits*</td>
<td>Monitoring report</td>
<td>20,00</td>
</tr>
<tr>
<td>State manager weekly analyzes performance indicators and propose action plans to correct deviations*</td>
<td>Action plan and/or e-mail with orientations</td>
<td>30,00</td>
</tr>
<tr>
<td>Customer satisfaction survey and a reminder of the offer for solutions is carried out with 100% of the companies visited within the period of 30 to 45 days after the second visit*</td>
<td>Survey's monthly report</td>
<td>20,00</td>
</tr>
<tr>
<td>State manager analyzes data from the call center of inexistent phone numbers and carry out auditing in this client, or hire company or empower tutors to perform this task</td>
<td>Monitoring report</td>
<td>20,00</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td>200,00</td>
</tr>
<tr>
<td><strong>2. Project</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project proposal follows structure recommended by national SEBRAE</td>
<td>Project</td>
<td>10,00</td>
</tr>
<tr>
<td>Visits started until the date proposed in the project</td>
<td>System</td>
<td>10,00</td>
</tr>
<tr>
<td>Uses national SEBRAE system or own system with validated reporting for the management of the program</td>
<td>System</td>
<td>10,00</td>
</tr>
<tr>
<td>Uses specific &quot;Call for professionals&quot; following the standards defined by SEBRAE Nacional</td>
<td>System</td>
<td>10,00</td>
</tr>
<tr>
<td>The workload of the training for the formation of agents is of 76 hours</td>
<td>Presence list of the training</td>
<td>10,00</td>
</tr>
<tr>
<td>The grades of the agents approved in the training were at least 7,0</td>
<td>List of grades</td>
<td>10,00</td>
</tr>
<tr>
<td>The announcement of the &quot;Call for professionals&quot; included visits to universities or other institutions that might supply workforce for the program. It was used posters, talks, seminars or other forms of publicity in this action. Does not apply if Call was</td>
<td>Varied evidence</td>
<td>10,00</td>
</tr>
</tbody>
</table>
not necessary due to the sufficient quantity of professionals registered.

| Tools' notebook follows standard of SEBRAE Nacional | Tools' notebook | 10,00 |
| Supplied the educational kit following guidelines provided by SEBRAE Nacional | Physical material | 10,00 |
| Supplied field material for the agent following guidelines provided by SEBRAE Nacional | Physical material | 10,00 |
| **Subtotal** | - | **100,00** |

### 3. Tutor

| The tutor took part in the training of the tutor's methodology | Certificate or minute of the training | 60,00 |
| The tutor followed agents monthly in their in loco visits to companies | Monitoring report | 60,00 |
| The tutor carried out the planned meetings with the agents | Minute signed | 30,00 |
| The tutor follows the standard procedure for the meetings with the agents | Minute signed | 30,00 |
| 100% of the feedback reports were released and made available for the agents in less than 10 days | System | 30,00 |
| The applicability of at least one solution is higher than 20% | System | 20,00 |
| The percentage of the applicability of at least one solution is higher than 80% | System | 30,00 |
| The average grade of the satisfaction survey above 8 | Survey report | 40,00 |
| **Subtotal** | - | **300,00** |

### 4. AOE

<p>| The agent was approved in a 76 hours training with methodology developed by national SEBRAE | Certificate or minute of the training | 60,00 |
| The personal presentation of the agent follows predefined standards | Monitoring report | 20,00 |
| The agent is carrying out the program's material | Monitoring report | 20,00 |
| The agent approaches companies adequately | Monitoring report | 20,00 |
| The agent asks to speaker to the owner of the company | Monitoring report | 20,00 |
| The agent correctly explains the methodology of the program | Monitoring report | 20,00 |
| The agent asks to be introduced to the company | Monitoring report | 20,00 |
| The agent identifies evidences to back up the answers | Monitoring report | 20,00 |</p>
<table>
<thead>
<tr>
<th>The agent explains the feedback report</th>
<th>Monitoring report</th>
<th>30,00</th>
</tr>
</thead>
<tbody>
<tr>
<td>The agent explains the Tools' Notebook</td>
<td>Monitoring report</td>
<td>20,00</td>
</tr>
<tr>
<td>The agent explains the tools indicated</td>
<td>Monitoring report</td>
<td>30,00</td>
</tr>
<tr>
<td>The agent explains the solutions indicated, including their dates, venues and prices**</td>
<td>Monitoring report</td>
<td>20,00</td>
</tr>
<tr>
<td>The agent schedules next visit</td>
<td>Monitoring report</td>
<td>10,00</td>
</tr>
<tr>
<td>The agent thanks and incentivizes the business' owner</td>
<td>Monitoring report</td>
<td>10,00</td>
</tr>
<tr>
<td>The applicability of at least of the recommended solutions is higher than 20%</td>
<td>System</td>
<td>10,00</td>
</tr>
<tr>
<td>The percentage of the applicability of at least one solution is higher than 80%</td>
<td>System</td>
<td>30,00</td>
</tr>
<tr>
<td>The average grade of the satisfaction survey above 8</td>
<td>Survey report</td>
<td>40,00</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>-</td>
<td>400,00</td>
</tr>
</tbody>
</table>
Case Study on the Business Performance of Suppliers to the Portuguese Health System During the Period of International Financial Assistance

Ricardo Brito Barros, Universidade Europeia, Portugal

Abstract
A multiple linear regression model and corresponding inferential analysis were used to study the business performance (Y-sales) and impact of the strategies implemented on suppliers of medical devices to the Portuguese health system during the period of economic crisis and international bailout provided by the International Monetary Fund (IMF) and European Commission EC (2011-2013). Specific measures over commercial investment (X₁) and sales concentration (X₂) were adopted, rendering these as the variables particularly suitable to explain the sales. ANOVA analysis shows that the model is globally significant, and that X₁ is relevant in explaining business performance Y, as confirmed by the individual t-test. This is not the case of X₂ as, despite the reasonable economic meaning of its regression coefficient, the individual t-test points to its irrelevance. The validity of model hypothesis, namely on the residuals, were attested by performing the White and Breusch-Godfrey statistical tests. The economic interpretation of the regression coefficients evidences the success of the measures adopted and the small variation observed on X₂ could account for its apparent statistic irrelevance. The general management should adopt one of the following options: either decrease more the level of concentration until the variable becomes, hopefully statistical relevant, or follow the opposite trend and increase even more the concentration level and observe its impact on the sales. The work evidences the application of a mathematical tool to aid decision making in current management of small trading companies being mostly transversal given the specificity of this Portuguese economic sector.

Keywords: Business, Management, Quantitative Analysis, Multiple Linear Regression, Inferential Statistics.
1. Introduction

Portugal has enjoyed significant improvements in its health status over the last three decades, with indicators such as life expectancy and rates of perinatal and infant mortality approaching the European Union average (Barros, Machado & Galdeano, 2008). Despite this, there are still health fragilities, namely between socioeconomic groups and regions along the country that did not reach the level of the EU or OECD averages (OECD 2013, *Health at a Glance*). Moreover, health care expenditure rose from 8.0% of GDP in the nineties to 10% in 2007 raising the question of sustainability of the health system, as mentioned by Thomson *et al.* (2009). This remarkable growth has been possible by strong investment in new procedures and technologies that were made available to the end user by a substantial effort of research institutes in cooperation with small and medium size local suppliers and distributers that developed their skills in order to search modern solutions, namely in the field of medical devices in a difficult period of adjustment to the Euro currency (Blanchard, 2007). This trend was threatened by the recessive economic cycle observed after the global crisis of 2008 (European Commission 2009, *DGEFA European Economy*), and deeply influenced by the strong internal economic crisis that followed the Portuguese bailout provided by the International Monetary Fund (IMF) and European Commission (EC) during the period of 2011 to 2013 (Armingeon & Baccaro, 2012 or Baum & Glatzer, 2014). The Portuguese healthcare sector and particularly the public system suffered many reforms and austerity measures, as mentioned by Karanikolos *et al.* (2013) or Valente and Marques (2014), demanding strict adjustment of all the players, namely the suppliers. The data used in the present study meets this context, since it was obtained from the commercial activity of a medium size company working in the health Portuguese market for more than 30 years, maintained here undisclosed for confidentiality. The dimension of the organization is very typical of the field, as in Portugal and Europe the majority of the medical devices (MD) suppliers to the National Health System are small or medium size companies, which contrasts with the pharmaceutical sector, where multinational companies are predominant (Eucomed Medical Technology, 2014).

Regression techniques are widely used in different fields of knowledge, spanning from management, economy, marketing or natural sciences (e.g. Shpresa Syla, 2013; Gujarati, 1992; Hill, Griffiths & Lim, 2008; Dransfield, Fisher & Vogel, 1999). In particular, multiple regression models play a significant role because very few phenomena can be explained by only a single explanatory variable. The use of quantitative and statistic methods that allow to conclude on business performance, namely sales, as a function of variables, such as marketing investment, human resources costs, interest rates and other variables have been firmly recognized to be of great help for a more efficient and solid management activity (Mentzer & Cox, 1984).

The company mentioned was experiencing less satisfactory results in the end of 2010 due to national austerity measures and economic crisis leading the general management to consider that indicators such as high concentration level of the sales and marketing investment should be considered key variables to fight, and hopefully, invert the tendency observed on the business. A plan for decreasing the concentration, investment in marketing activities, human resources, costumer visit plans was implemented in the beginning of 2011 and followed until the end of 2013. The sales...
were accessed during thirty six months along with the corresponding marketing investment and level of concentration as measured by the Gini (1910) methodology. The present paper aims to get a better knowledge on the business performance and response of the sector under the very specific and difficult mentioned context through the use of a quantitative approach (multiple regression analysis) and corresponding statistical analysis. The use of standard data analysis tools and inferential statistics to tackle real problems is exemplified, hopefully allowing concluding in a broader way over the sector.

2. Methods
To study the relationship between sales concentration and commercial investment on the business performance a multiple regression model was used as follows,

\[ Y_i = \beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} + U_i \]  

(1)

where \( Y_i \) are the sales of month \( i \) in the medical devices (MD) department, \( X_{i1} \) is the \( i^{th} \) investment in the commercial activity and \( X_{i2} \) is the corresponding concentration level as measured by the Gini (1910) approach. The term \( U_i \) represents the random error, assuming homoscedasticity.

Monthly sales \( Y_i \) and corresponding values of the independent variables were considered from January 2011 to December 2013, those of the first year shown in Table 1 (complete data provided in Appendix 1, Table A1).

<table>
<thead>
<tr>
<th>Month</th>
<th>Sales ( Y_i/10^5 ) Euro</th>
<th>Investment ( X_{i1}/10^5 ) Euro</th>
<th>G (Gini coefficient) ( X_{i2} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2.543784</td>
<td>0.275245</td>
<td>0.613258</td>
</tr>
<tr>
<td>2</td>
<td>2.532769</td>
<td>0.262479</td>
<td>0.592637</td>
</tr>
<tr>
<td>3</td>
<td>2.617796</td>
<td>0.274686</td>
<td>0.544287</td>
</tr>
<tr>
<td>4</td>
<td>2.558764</td>
<td>0.275358</td>
<td>0.545412</td>
</tr>
<tr>
<td>5</td>
<td>2.514824</td>
<td>0.271212</td>
<td>0.540184</td>
</tr>
<tr>
<td>6</td>
<td>2.648487</td>
<td>0.277066</td>
<td>0.530610</td>
</tr>
<tr>
<td>7</td>
<td>2.629756</td>
<td>0.284756</td>
<td>0.530678</td>
</tr>
<tr>
<td>8</td>
<td>2.632389</td>
<td>0.275894</td>
<td>0.554372</td>
</tr>
<tr>
<td>9</td>
<td>2.734390</td>
<td>0.265951</td>
<td>0.558602</td>
</tr>
<tr>
<td>10</td>
<td>2.760121</td>
<td>0.266725</td>
<td>0.554891</td>
</tr>
<tr>
<td>11</td>
<td>2.564318</td>
<td>0.288388</td>
<td>0.527612</td>
</tr>
<tr>
<td>12</td>
<td>2.585316</td>
<td>0.298378</td>
<td>0.539618</td>
</tr>
</tbody>
</table>
The concentration data was obtained from the distribution of the sales among the costumers using a classification in seven categories for each month, as exemplified in Table 2 for the second month. A similar approach was used for the remaining periods.

**Table 2.** Classification of the sales among costumers in the second month of 2011.

<table>
<thead>
<tr>
<th>Sales /Euro</th>
<th>AF</th>
<th>RF</th>
<th>ARF</th>
<th>S</th>
<th>RS</th>
<th>ARS</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 500</td>
<td>92</td>
<td>0.597</td>
<td>0.597</td>
<td>20111.232</td>
<td>0.079</td>
<td>0.079</td>
</tr>
<tr>
<td>[500, 1000]</td>
<td>19</td>
<td>0.123</td>
<td>0.720</td>
<td>13848.463</td>
<td>0.055</td>
<td>0.134</td>
</tr>
<tr>
<td>[1000, 2000]</td>
<td>18</td>
<td>0.117</td>
<td>0.837</td>
<td>23722.284</td>
<td>0.094</td>
<td>0.227</td>
</tr>
<tr>
<td>[2000, 3000]</td>
<td>7</td>
<td>0.045</td>
<td>0.883</td>
<td>17227.391</td>
<td>0.068</td>
<td>0.295</td>
</tr>
<tr>
<td>[4000, 10000]</td>
<td>11</td>
<td>0.071</td>
<td>0.954</td>
<td>62959.489</td>
<td>0.249</td>
<td>0.545</td>
</tr>
<tr>
<td>[10000, 15000]</td>
<td>4</td>
<td>0.026</td>
<td>0.980</td>
<td>50869.188</td>
<td>0.201</td>
<td>0.745</td>
</tr>
<tr>
<td>≥ 15000</td>
<td>3</td>
<td>0.019</td>
<td>1.000</td>
<td>64538.820</td>
<td>0.255</td>
<td>1.000</td>
</tr>
<tr>
<td>Total</td>
<td>154</td>
<td></td>
<td></td>
<td>253276.87</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

AF - Absolute Frequency; RF - Relative Frequency, ARF - Accumulated Relative Frequency; S - Sales; RS - Relative Sales; ARS - Accumulated Relative Sales.

The Gini Coefficient was determined by equation 2 ($ARF$- accumulated relative frequency; $ARS$- accumulated relative sales) using the six first groups of the classified sales distribution for each of the thirty six months.

$$G = \sum_{i} ARF_i - \sum_{i} ARS_i$$

Using matrix notation, the predicted $Y$ values given by the regression described in (1) may be written as:

$$Y = X\beta + U$$

where $Y$ is a $T$-dimensional column vector containing observations on the dependent variable, $X$ is a $T \times k$ matrix of observations of the independent variables, $\beta$ is a $k$-column vector of invariant parameters. $T=36$ is the number of observations and $k=3$ is the number of right-hand side regressions in the present situation. The estimate of $\beta$ is obtained by minimization of the squared error term:

$$\sum_{i=1}^{36} \varepsilon_i^2 = \sum_{i=1}^{36} (Y_i - \hat{Y}_i)^2 = \sum_{i=1}^{36} (Y_i - \hat{Y}_0 - \hat{\beta}_1 X_{i1} - \hat{\beta}_2 X_{i2})^2$$

or in matrix notation,

$$\varepsilon^T \varepsilon = (Y - \hat{X}\hat{\beta})^T (Y - \hat{X}\hat{\beta})$$
leading to the usual the standard formula, Gujarati (1992):

\[
\hat{\beta} = \left(X^T X \right)^{-1} X^T Y = \begin{bmatrix} \hat{\beta}_0 \\ \hat{\beta}_1 \\ \hat{\beta}_2 \end{bmatrix} \quad (6)
\]

where \( \hat{\beta}_0 \) is the regression intercept and \( \hat{\beta}_1 \) and \( \hat{\beta}_2 \) are interpreted as the sensitivity of \( Y \) to the independent variables, holding all other factors fixed.

The minimization of Equation (5), involving setting equal to zero the partial derivatives with respect to \( \hat{\beta} \), was performed using the data analysis regression tool of software OriginPro-9.1. The inferential data, namely the global significance of the model (ANOVA analysis), individual statistic tests on the coefficients and tests on the residuals were performed at a 95% confidence level with the same software package.

3. Results and Discussion

The data was used to predict the values of the regression coefficients of Equation 1, as summarized in Table 3 along with the corresponding values of the global coefficient of determination, \( R^2 \), and adjusted \( \overline{R}^2 \).

Table 3. Regression coefficients, \( \hat{\beta}_0 \), \( \hat{\beta}_1 \) and \( \hat{\beta}_2 \), coefficients of determination (unadjusted and adjusted) and correlation outputs obtained by the OLS method for the sales \( (Y) \) and corresponding commercial investment \( (X_1) \) and sales concentration Gini coefficient \( (X_2) \) from January 2011 to December 2013.

<table>
<thead>
<tr>
<th>Coefficient</th>
<th>( R^2 )</th>
<th>( \overline{R}^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \hat{\beta}_0 )</td>
<td>1.73642</td>
<td>0.54736 0.51992</td>
</tr>
<tr>
<td>( \hat{\beta}_1 )</td>
<td>5.78049</td>
<td></td>
</tr>
<tr>
<td>( \hat{\beta}_2 )</td>
<td>1.26180</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Correlation</th>
<th>( X_1 )</th>
<th>( X_2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>intercept</td>
<td>1</td>
<td>-0.86421</td>
</tr>
<tr>
<td>( X_1 )</td>
<td>-0.86421</td>
<td>1</td>
</tr>
<tr>
<td>( X_2 )</td>
<td>-0.88298</td>
<td>0.52793</td>
</tr>
</tbody>
</table>

The fitted model,

\[
\hat{Y}_i = 1.73642 + 5.78049X_{1i} - 1.26180X_{2i} \quad (7)
\]

is represented in Figure 1A as a scatter plot of the predicted sales values of each month \( \hat{Y} \) as a function of the commercial investment \( X_1 \) and Gini concentration \( X_2 \). A plot of the residuals observed for each month is also shown (Figure 1B).
The coefficient of determination obtained indicates that the quality of the regression is acceptable as 54.74% of the variability of the sales is explained by the variability of the commercial investment $X_1$ and level of concentration $X_2$, through the multiple linear model adopted. The similar fitting quality given by the corrected coefficient ($\bar{R}^2 =0.51992$) accounts for the fact that the number of observations used is appropriate for the number of variables used in the present study.

![Figure 1. (A) Three-dimensional plot of the best-fit multiple regression predicted sales values of each month $\hat{Y}$ as a function of the corresponding commercial investment $X_1$ and Gini concentration coefficient $X_2$. (B) Plot of the residuals obtained for each of the thirty six observations.]

The global quality of the model used is attested by the ANOVA analysis summarized in Table 4 showing that the explained sum of squares (ESS= 0.47036) is above the residual sum of squares (RSS= 0.38897) leading to an F statistics of 19.95 and P-value of 2.089E−6, which for a significance level of 0.05 is in the critical range for rejection of the null hypothesis ($H_0 : \beta_1 = \beta_2 = 0$), rendering the model globally significant.

<table>
<thead>
<tr>
<th></th>
<th>DF</th>
<th>SS</th>
<th>MSS</th>
<th>F</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>2</td>
<td>0.47036</td>
<td>0.23518</td>
<td>19.95243</td>
<td>2.08929E−6</td>
</tr>
<tr>
<td>Residual</td>
<td>33</td>
<td>0.38897</td>
<td>0.01179</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>0.85932</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 4.** Analysis of Variance (ANOVA) data obtained on the multiple linear regression (MLR) model used to predict the sales ($Y_i$) as a function of the corresponding commercial investment ($X_1$) and sales concentration Gini coefficient ($X_2$).
The residuals plot (Figure 1B) points to random distribution and investigation on homogeneity of their variance, was assessed by performing the White’s (1980) test. An auxiliary regression of the square residuals for all possible non redundant cross products of the regression was computed, according to Equation (8):

$$
\hat{e}_i^2 = a_0 + a_1 x_{i1} + a_2 x_{i2} + a_3 x_{i1}^2 + a_4 x_{i2}^2 + a_5 x_{i1} x_{i2} + U_i \tag{8}
$$

The regression calculations performed for Equation (8) are presented in Table 5.

**Table 5.** Regression results obtained by the OLS method for the square of the residuals as a function of $x_{i1}$, $x_{i2}$, $x_{i1}^2$, $x_{i2}^2$ and $x_{i1} x_{i2}$ for testing heteroscedasticity (White’s Test, 1980).

<table>
<thead>
<tr>
<th>Coefficient</th>
<th>$\hat{a}_0$</th>
<th>$\hat{a}_1$</th>
<th>$\hat{a}_2$</th>
<th>$\hat{a}_3$</th>
<th>$\hat{a}_4$</th>
<th>$\hat{a}_5$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$R^2$</td>
<td>0.11826</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\bar{R}^2$</td>
<td>0.02869</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The White’s test statistics, calculated as the product of the sample size by $R^2$ from the test regression ($nR^2$), is asymptotically distributed as a $\chi^2$ distribution with degrees of freedom (DF) equal to the number of slopes coefficients (excluding the interception) in the test regression, resulting DF= 5. For the present data, $nR^2= 4.25736$, which is well below the critical value of 11.07 needed to reject the null hypothesis at 95% confidence level. We therefore conclude on the constancy of the variance of the residuals. Further model validity, namely the existence of autocorrelation on the residuals was assessed by performing the Breusch-Godfrey or LM test (Breusch, 1978 and Godfrey, 1978). It involves regression of the residuals for all the variables and previous residuals up to order $p$, according to Equation (9):

$$
\hat{e}_i = A_0 + A_1 x_{i1} + A_2 x_{i2} + \rho_1 \hat{e}_{i-1} + \rho_2 \hat{e}_{i-2} + \ldots + \rho_p \hat{e}_{i-p} + U_i \tag{9}
$$

The regression calculations performed for Equation (9) with $p = 2$ are presented in Table 6.

**Table 6.** Regression results obtained by the OLS method for the residuals as a function of $x_{i1}$, $x_{i2}$, $\hat{e}_{i-1}$, $\hat{e}_{i-2}$ for testing autocorrelation (Breusch-Godfrey’s test, 1978, $H_0 : \rho_1 = \rho_2 = 0$).

<table>
<thead>
<tr>
<th>Coefficient</th>
<th>$\hat{\lambda}_0$</th>
<th>$\hat{\lambda}_1$</th>
<th>$\hat{\lambda}_2$</th>
<th>$\hat{\rho}_1$</th>
<th>$\hat{\rho}_2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$R^2$</td>
<td>0.15746</td>
<td></td>
<td></td>
<td>0.43922</td>
<td>-0.11287</td>
</tr>
<tr>
<td>$\bar{R}^2$</td>
<td>0.04125</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The test statistics is obtained from the product of the sample size ($T = N - p$) by $R^2$ and follows a $\chi^2$ distribution with $p$ degrees of freedom. For the present data $T = 34$, resulting $T \bar{R}^2 = 5.35364$, which is well below the critical value of 5.99 needed to reject the null hypothesis at a 95% confidence level, evidencing the absence of autocorrelation.
on the residuals. It is therefore reasonable to proceed with an economic interpretation of the implemented regression.

Equation (7) states that when the investment and concentration are equal to 0 the sales in the corresponding month would stabilize in $1.73642 \times 10^5$ Euro, which has little economic meaning as these represent limit conditions: no commercial investment and “ideal complete balance” of the sales among the customers, which are far from the context and values of the independent variables considered in the present study. The positive relation between $Y$ and $X_1$ is in good agreement with that expected and the model indicates that an increase in the commercial investment of $1 \times 10^5$ Euro ($\Delta X_1 = 1$) will cause an increase in the sales of $\sim 5.78 \times 10^5$ Euro, holding all other variables constant. A negative relation is obtained between $Y$ and $X_2$, telling that an increase in concentration will lead to a decrease in the sales, which seems to be in agreement with that expected as well. Further validation may be obtained by inferential data, namely the individual significance of the coefficients given by the t-Student tests, presented in Table 7. The t-Student statistics (4.34729) observed for the coefficient regarding $X_1$ is above the critical value for rejection of the null hypothesis, with a P-value of 0.00012, well below the significance level chosen (0.05). This variable is therefore significant to explain the variation of the sales in the medical devices department, thus providing statistical support to the economic interpretation and shows that the strategy regarding the investment in this area is quantitatively related with the results obtained.

Table 7. Individual statistics significance t-tests on the coefficients of the multiple linear regression model used to predict the monthly sales ($Y_i$) as a function of the corresponding commercial investment ($X_1$ Euro) and sales concentration Gini coefficient ($X_2$) at a significance level of 5% ($H_0 : \beta = 0$).

<table>
<thead>
<tr>
<th>Coefficient</th>
<th>t-Student test</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\beta_0$</td>
<td>2.46493</td>
<td>0.01908</td>
</tr>
<tr>
<td>$\beta_1$</td>
<td>4.34729</td>
<td>1.24323E-4</td>
</tr>
<tr>
<td>$\beta_2$</td>
<td>-1.59741</td>
<td>0.11971</td>
</tr>
</tbody>
</table>

The t-statistics regarding $\beta_2$ assumes a value of $-1.597$ that falls on the region of non-rejection of the null hypothesis ($H_0 : \beta_2 = 0$, DF=33) at a 95% confidence level with a P-value of 0.1197, stating the statistical irrelevance of $X_2$ in explaining the variation of $Y$ in the model. The strategy adopted of making investment in promotion and marketing activities among customers located in the interior regions of Portugal resulted in the decrease of the concentration as can be seen by the trend of the data in Figure 2. However, there is some dispersion and despite the low values observed in three months (observations 21, 26 and 29 ($\sim 0.47$)) they seem to stabilize in the range of 0.51 to 0.53, eventually contributing to the statistical irrelevance of $X_2$. 

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The observed irrelevance of $X_2$ could also be due to multicollinearity between the variables $X_1$ and $X_2$ but no such possibility seems to be apparent from the scatter plot presented in Figure 3 and corresponding bivariate correlation coefficient of 0.52793 obtained from the multiple regression output (Table 3).

The association of the dependent variable with the independent variables can also be investigated separately by performing simple linear regression as presented in Tables 8 and 9. Global significance is attested by the very low $p$-values of the ANOVA tests (Table 9) validating further analysis on the relations between the variables. Comparing the simple regression results with those of the multiple regression (Tables 3 and 4), we see that both correlations are now relatively weak ( $Y$ and $X_1$; $R^2$=0.48056; $Y$ and $X_2$; $R^2$=0.26719 ) but the sign observed for the slopes align with those of MLR, thus confirming positive correlation with $X_1$ and negative with $X_2$. The dissimilarities observed in the magnitude of the coefficients when performing SLR and MLR are expected as bivariate correlations completely ignore the effect of other variables. The very weak correlation observed with $X_2$ seems to confirm the lack of statistical relevance found previously turning less clear its impact on the dependent variable of sales. This may be associated with the small variation attained on $X_2$ during the period analysed, despite the effort to decrease the concentration made by the general management. In fact, one should consider that the model is describing the true relation, telling that further increase in the concentration level should correspond to a sales decrease of medical devices.
Figure 3- Representation of the concentration-Gini coefficient, $X_2$ as a function of the commercial investment, $X_1/10^5$ Euro.

Table 8. Regression coefficients $\hat{\beta}_0$ and $\hat{\beta}_1$ and coefficients of determination (unadjusted and adjusted) obtained by performing separately the OLS method to predict monthly sales ($Y_i$) as a function of commercial investment ($X_1$) and concentration ($X_2$) from January 2011 to December 2013.

<table>
<thead>
<tr>
<th>Coefficient</th>
<th>$\hat{\beta}_0$</th>
<th>$\hat{\beta}_1$</th>
<th>$\hat{\beta}_0$</th>
<th>$\hat{\beta}_1$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$Y \ vs \ X_1$</td>
<td>0.80947</td>
<td>6.66813</td>
<td>4.38304</td>
<td>-3.07468</td>
</tr>
<tr>
<td>$Y \ vs \ X_2$</td>
<td>0.49540</td>
<td>0.28813</td>
<td>0.48056</td>
<td>0.26719</td>
</tr>
</tbody>
</table>

Table 9. Analysis of Variance (ANOVA) data obtained by performing separately simple linear regression to predict the monthly sales ($Y_i/10^5$ Euro) as a function of the corresponding commercial investment ($X_1/10^5$ Euro) and concentration ($X_2$).

<table>
<thead>
<tr>
<th>$\hat{Y} \ vs \ X_1$</th>
<th>DF</th>
<th>SS</th>
<th>MSS</th>
<th>F</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1</td>
<td>0.41097</td>
<td>0.41097</td>
<td>33.38013</td>
<td>1.67521E–6</td>
</tr>
<tr>
<td>Residual</td>
<td>34</td>
<td>0.41860</td>
<td>0.01231</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>0.82957</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>$\hat{Y} \ vs \ X_2$</th>
<th>DF</th>
<th>SS</th>
<th>MSS</th>
<th>F</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1</td>
<td>0.24760</td>
<td>0.24760</td>
<td>13.76138</td>
<td>7.37897E–4</td>
</tr>
<tr>
<td>Residual</td>
<td>34</td>
<td>0.61173</td>
<td>0.01799</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>0.85932</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

DF-Degree of Freedom, SS- Sum of Squares, MSS-Mean Sum of Squares, F-Statistics, P-value- Prob > F.
The general management of the company should analyse the change in strategy regarding this variable, choosing one of the two options: make further investment in promotion activities among distant clients in order the decrease significantly the concentration and, hopefully, get a good correlation with the final sales until it renders significant, or abandon this strategy with the focus on the traditional costumers and increase even more de concentration. The latter, would lead to a higher dependence on fewer costumers with the corresponding increased risk.

A different conclusion is obtained by analysis of the inferential data on the $\beta_i$ coefficient. From this study it is clear that the strategy of the company to fight the recessive economic cycle and financial crisis in terms of increasing the investment on a key variable has clear impact in the sales, although a better reflection has to be done regarding spending in spreading the range of costumers for the interior regions of the Country. However, one should consider that despite the high level of investment in the last six months of 2013 (Table A1-Appendix A) the impact on the sales was not notorious as these tend to stabilize, showing some saturation and lack of response from the market, maybe due to the recessive economic cycle generated by the strong austerity measures taken by the government during the bailout to Portugal from 2011 to 2013. To overcome this tendency of stagnation the general managements should consider the trend followed by many other Portuguese companies, namely of the construction sector, that tried internationalization to preferential markets such as Lusophony African countries. This is in fact of utmost importance to the survival of many companies as stated recently by Sutter, Vasconcellos and Polo (2014) on their study based on the theoretical framework of internationalisation and application to an emerging market company.

4. Conclusions

The present work explores the application of multiple regression and corresponding statistical analysis to better understand the response of small companies supplying medical devices to the Portuguese health sector during a period of strong economic crisis and bailout from the International Monetary Fund and European Commission. The trends and discussion made may be mostly transversal given the similarities of the companies operating in this Portuguese economic sector. The model is successful in explaining the sales as a function of the commercial investment and level of concentration as attested by the ANOVA and residuals statistical tests applied to the data. Economic meaning was withdrawn from the interpretation of the regression coefficients and specific business strategies were appointed as guidelines for the near future, namely internationalization. The percentage of the variability explained by the linear regression here attempted, although acceptable, evidence that other variables may in fact have explanatory power on the sales as expected for such a significant dependent variable. It would be therefore interesting to explore the impact of other variables such as interest rates, and level of the debt to the bank sector on the sales performance over the sector.
References


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Acknowledgements
The author acknowledges the undisclosed Portuguese medical devices company for kindly provide the primary data used in the present study.
## Appendix A

Table A1 \( Y / 10^5 \) Euro, investment in the commercial activity \( X_{1i} / 10^5 \) Euro and sales concentration Gini coefficient \( X_{i2} \) of the MD department from January 2011 to December 2013.

<table>
<thead>
<tr>
<th>Month</th>
<th>Sales ( Y / 10^5 ) Euro</th>
<th>Investment ( X_{1i} / 10^5 ) Euro</th>
<th>G (Gini coefficient) ( X_{i2} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2.543784</td>
<td>0.275245</td>
<td>0.613258</td>
</tr>
<tr>
<td>2</td>
<td>2.532769</td>
<td>0.262479</td>
<td>0.592637</td>
</tr>
<tr>
<td>3</td>
<td>2.617796</td>
<td>0.274686</td>
<td>0.544287</td>
</tr>
<tr>
<td>4</td>
<td>2.558764</td>
<td>0.275358</td>
<td>0.545412</td>
</tr>
<tr>
<td>5</td>
<td>2.514824</td>
<td>0.271212</td>
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<tr>
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<tr>
<td>7</td>
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<td>0.284756</td>
<td>0.530678</td>
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<tr>
<td>8</td>
<td>2.632389</td>
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<td>0.554372</td>
</tr>
<tr>
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<td>0.558602</td>
</tr>
<tr>
<td>10</td>
<td>2.760121</td>
<td>0.266725</td>
<td>0.554891</td>
</tr>
<tr>
<td>11</td>
<td>2.564318</td>
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<td>0.527612</td>
</tr>
<tr>
<td>12</td>
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<td>0.539618</td>
</tr>
<tr>
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<td>0.273389</td>
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<tr>
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<td>15</td>
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<td>16</td>
<td>2.698750</td>
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<td>2.757120</td>
<td>0.291312</td>
<td>0.513378</td>
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<tr>
<td>19</td>
<td>2.679202</td>
<td>0.304756</td>
<td>0.514479</td>
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<td>2.724511</td>
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<td>21</td>
<td>2.697793</td>
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<td>22</td>
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<td>23</td>
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<td>24</td>
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<td>0.292172</td>
<td>0.475549</td>
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<td>0.315028</td>
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<tr>
<td>29</td>
<td>2.934491</td>
<td>0.301233</td>
<td>0.470474</td>
</tr>
<tr>
<td>30</td>
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</tr>
<tr>
<td>32</td>
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<td>0.315884</td>
<td>0.527235</td>
</tr>
<tr>
<td>33</td>
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</tbody>
</table>
The Study of Success Career-Life Concordance
(Case on Teachers, Lecturers and Nurses in Jakarta)

Sylvia Diana Purba, Atma Jaya Chatolic University of Indonesia, Indonesia
Sugeng Wahyudi, Diponegoro University Semarang, Indonesia

Abstract
Much research in career succes has been discussed. Accordingly, career success criteria continue to develop especially from the women viewpoint. This research proposes the concept of career success that considers work-life balance in woman career, namely as the success career-life concordance (SCLC). The SCLC is a women success career that aligns with the appropriate choice of occupation, running harmoniously with the family and community life. Many studies assumed that success career will increase job satisfaction if it supported with work-life balance. This study aims to establish a theoretical and empirical models of the SCLC toward job satisfaction. The research is carried out on woman employees as teachers, nurses and lecturers in Jakarta with 150 participants. The analysis was conducted using the Structural Equation Model (SEM) and AMOS software was used to analyze the SEM. The results showed that the work-life balance, career motivation and the SCLC determined job satisfaction significantly. In that case, the SCLC can be considered as an intervening variable in the effect of work-life balance on the job satisfaction. In contrast, the SCLC had no mediating effect on the impact of the career motivation toward the job satisfaction. In conclusion, the research findings propose the concept of career success namely the success career-life concordance (SCLC) is proven as mediating variable in the impact of WLB toward job satisfaction. The SCLC significantly influences job satisfaction in women career when the WLB is possible to realize.

Key words: Work-Life Balance, Career Motivation, Success Career-Life Concordance, Job Satisfaction
**Introduction**

The woman's roles in the labor market has increased rapidly (Kirkton and Greene, 2000). Currently, the number of dual earner couples continues to rise. However, the domestic roles of women always been done, and as a consequence many married women had role conflicts in their lives. The interest to research the women careers is growing. Some findings showed that women preferred to take care of children than working at the market (Betz and Fitzgerald, 1987; Whitmarsh et al. 2007) even many career women chose to resign after getting married and after having children if they have strict working hours (Hereman, 2006; Crompton and Lyonette, 2007; Schilling, 2012). The research also focused on how women align their career with family life patterns.

Dual roles were perceived as a trigger in work family conflict (WFC). In fact, WFC became a dilemma for women to have success in their career (Ahmad, 1999; Saltzstein, Ting Ting & Saltzstein, 2001; Quesenberry & Trauth, 2007; Breugh, Frye & Kathleen, 2008). WFC would be a problem on performance if the organization did not provide facilities for women as a worker and housewife that have dual roles (Warren, Fox & Pascall, 2009; Lewis & Campbell, 2008; Voydanoff, 2004; Sullivan & Lewis, 2001; Grzywacz & Marks, 2000). However, women needed work-life balance (WLB) to improve performance, job satisfaction, and career success (Malik, Saleem & Ahmad, 2010; Fonseca & Verma 2001b; Saltzstein et al. 2001; Aryee, Tan & Srinivias, 2005; Hudson, 2005; Anderson, Birkeland & Bidding, 2010).

The WLB issues in developed countries have been widely discussed (Koppes, 2008; Waren et al. 2003) even 25% of workers in the United States believed WLB is more important than salary (Lewison, 2006). In contrast, in developing countries such as Indonesia, WLB is not an important issue, and did not have the attention both from the organization and the Government (Purba, 2014). Meanwhile, the opportunity for career women in various occupations and industries has been increasing today. Although there are no definite number regarding the number of working women in Jakarta, the data of BPS show that more than 50% housewives in Jakarta are paid workers (BPS-RI Susenas 2009-2011). However, another phenomenon in Jakarta which is also growing along with the increasing empowerment of women is the high cases of divorce (Nurhayati, 2013 in P2TP2A data).

As individual woman will be encouraged to work by motivation that are different one another. Some women expected to occupy the top hierarchy in career, but others are not. The changes of individual's perception about the work could affect the view of the importance of the WLB in career life. Individuals with a high motivation in career will be able to perform well (Day & Allen, 2004) and will have job satisfaction. A career woman who is satisfied in work will be more productive and effective than those who were not satisfied (Springer 2011). Strong career motivation can represent positive feelings towards the profession that had been chosen, and the experience and activities under taken in a career (Locke, 1976; London, 1990; Payakachatet et al, 2011). This research tries to develop the concept of the career success-life concordance that was believed to be possible to mediate the influencing of career motivation and the WLB toward the job satisfaction.

Much research have been done regarding the WLB and career success but until now the WLB issue in women career are still interesting to be discussed and continues to
be developed. Some studies showed that WLB had a significant impact on job satisfaction (Malik et al. 2010; Fonseca & Verma 2001b; Saltzstein et al. 2001; Aryee et al. 2005; Anderson et al. 2010), but in contrast, others found the WLB had no significant impact toward the job satisfaction (Rothbard et al. 2005; Reynolds 2005; Marks and Mac Dermid 1996). To fill the gap, this study develops the variable of career success which calling as a success career-life concordance (SCLC). The SCLC assumed as a mediating variable on the influence of WLB toward job satisfaction.

Statement of the Problem
This study intended to analyze how women create the WLB and the career motivation which will increase the job satisfaction, meanwhile the success of career is running harmoniously with life or non work situation. The research proposes women, such as teachers, lecturers, and nurses in Jakarta as participants. The problem of this study is: “How WLB and career motivation influence the job satisfaction are mediated by success career-life concordance among female employees in Jakarta.” This research is expected to obtain findings that are beneficial for many parties in Indonesia.

Literature Review
The View of Career Success
Theories on career successes have been investigated over time. The career success criterias had been discussed from some perspectives such subjective and objective career success, (Hughes, 1937; 1958 as cited in Heslin 2005), education (Judge, Cable, Boudreau & Bretz, 1995), and career tactics (Judge & Bretz 1995). Further, the career success views were developed from the psychology perspective (Hall & Chandler 2005), encompasses gender (Lyness & Thompson 2000), personalistics (Seibert & Kreimer 2001), behavior (Johnson & Stokes 2002), trait (Orpen 1998) protégé career success (Day & Allen 2002) and career success (Arthur et al. 2005). In the period of 1980-1994 career studies tended to use the objective success approach, which were measured by verifiable attainments, such as pay, promotions, and occupational status (Arthur and Rousseau, 1996) then, in the 21st century, researches had changed to the subjective success approach (Greenhaus 2003; Hall 2002). Subjective career success tended to define success in long time satisfaction (Greenhaus et al. 2000), as the large of the outcome (Law et al. 2002), the goals (Cochran 1990), and personal goals (Gattiker and Larwood 1998). Other success criterias continue to grow to other perspectives such as status, time for self, challenges, social and security (Friedman & Greenhaus 2000), to realize work-life balance (Finegold & Mohrman 2001), as meaningfullness career (Wrzesniewski 2002), transcendence career (Dobrow 2004), having work contribution (Hall & Chandler 2005). Until now, concepts related to career success from many points of views continue to develop.

A Self and Other Referent Criteria
Heslin, 2005, suggested other success criteria of career that was called as a self referent criteria (unique variance). The criteria for a successful career could be perceived through individual career satisfaction, such as career goals for WLB or fulfillment. “Regardless of what other people achieve, a person who is highly committed to such an aspiration is liable to experience career success if it is realized. Then, it is potentially feeling that their career is not successful if the goal is not attained” (p.119). Heslin also proposes other referent criteria that people evaluated their objective and subjective career outcomes relative to other-referent, as well as
self-referent criteria. “Theory and research suggest however, that people nonetheless often evaluate their career success relative to the outcomes achieved by other people”(p.119).These assumptions bring an understanding that career success is not always the same for each person, since successful criteria are not always based on money and promotion (Hall et al. 2002; Korman, Wittig-Berman & Lang, 1981; Schein, 1978). Furthermore, career success will be associated with job satisfaction and become an integral and inseparable with personal value, relationship with family, communities, health and personal life.

Career Motivation
London, 1983 wrote “Career motivation is conceptualized here as a multidimensional construct internal to the individual, influenced by the situation, and reflected in the individual's decision and behaviors”. London divided the dimensions of career motivation (CM) into three domains: career identity, career insight and career resilience. London argued that career motivation was influenced by individual characteristics, situational characteristics and career decisions and behavior including non-work variables. In subsequent development, career success could also be interpreted by using intrinsic motivation components referred to, as task assessments which were grown by feelings of meaningful, choice, competence and progress (Quigley et al. 2006). Individuals would be interested in working with joy when driven by autonomous motives from themselves. This idea was relevant with self-concordance motivation proposed by Sheldon, Ryan, Deci & Kasser 2004.

Career commitment
Career is the process, attitudes, habits and situations in life that are related to the job. Career was not solely about the success, it is also about the commitment. Career commitment is a powerful motivation force to lead role in career (Hall, 1971; Nordin et al. 2002). Career commitment could be important to develop performance, survives, and develop skills, and processing professional relationships (Colarelli & Bishop 1990; Noordin et al. 2002). In the contemporary perspectives, the commitment is not for intended the benefit of organizations and individuals only, but more extensive and involves many parties, called as multiple-commitment (Arthur & Parker, 2000). Career commitment is the reasoning why a people choose their career in a long term. It has been built by many factors. Further, Arthur and Parker stated that career commitment is associated with the industries, occupational and professional association, national and regional, ideological, alumni, support groups, family, virtual and organizations in every part. The view of extensive of career commitment is relevant to the view of career success. The criterias of the career commitment is linked to the individuals perspectives and the situational conditions.

Work-life Balance and Job Satisfaction
The number of female labors continues to expand. It was increasing relevant for women desire to obtain revenue and satisfaction. In nature, job satisfaction is equal for both men and women, therefore the opportunities of success must be equal too (Farmer, 1985; Schneer & Reitman, 1993). Many studies have examined gender in career success since studies have showed a significant finding that career success are different between men and women. As it had been discussed before, empirical research proved if women often faced a work life conflict (WLC) in their career (Kossek & Ozeki, 1998), the WLC reduced the job satisfaction and career development (Stroh, Brett & Reilly, 1996), and also the fulfillment (Trebunsel et al.
1995). However, women will work better and happy when they have been supported by the family (Nikandrou et al. 2008) but the problems are complex if the WLC could not be avoided (Van Vianen & Fischer 2002). Women need WLB to realized quality of life and it must be supported from many parties. Relevant to the research finding by Finegold & Mohrman 2001, the WLB was needed in every phase of women lives career to support the career success. Some studies had examined the WLB as a spillover model, this model explained the domain of work and the domain of non-work that could be influence one each other in positive or negative way (Zedeck & Mosier 1990; O’Driscoll & Humphries 1994; Akdere, 2006; Clark, 2000).

Previous research suggested by Sonnenfeld and Kotter, 1982 related to career success proposed a model of career development. The model described accordance situation of career associated with overall dimensions of life. The dimensions consist of individual/personal space, work occupational space and non-work/family space. The three dimensions showed how career integrated with life cycle (Sonnenfeld & Kotter 1982). The congruence or match between the individual life cycle and current work situations will affect the decision of women to choose their career. The model also explained that the individual current perspective associated with current family/non work situation and current work situation. In particular, this model became more complex for women since they have dual roles in nature. Women will make much effort to integrate current work occupational space with current non-work family space to obtain the WLB. A married women will faces a dynamic and complexity life with their dual roles, it will present a dilemma in a career success. It is the time for organization to support women to realize WLB, since women ussually preferred to choose a career that will delivered WLB.

**WLB and Career Success**

The different professions may have different adaptations with work-life conflict (WLC). For example, accountants have difficulties to blend their role in work-life than doctors (Crompton & Lyonette 2006). In general terms, a female accountant will be loose their career if they make WLB as a priority. This means that working conditions and the rules have a big impact in realizing WLB. They suggested WLB as an important issue in a career success. A relevant research came from Herman (2006) and Schilling (2012); they found that the WLB was a factor of career success and work satisfaction.

Meanwhile, another study found a contrast results about how WLB associates with career. Straub (2007) explained supporting WLB in managerial position may not influence career success significantly. The WLB programs found, had negative impacts toward career success, except the acceleration of payment of maternity leave. The programs like: flexibletime; paid sabbaticals; home/tele-working; job protected maternity and paternity leave arrangements above the statutory minimum; extra pay for maternity and paternity leave arrangements in addition to the statutory minimum; the appointment of someone to combat discrimination and promote diversity; and the promulgation of a code of conduct, setting out the company’s commitment to combat discrimination of gender. Straub suggested that women did not comfort to participate in the programs since they were afraid they would have bad image on performance. Another relevant research came from Konrad & Mangel (2000). They found out that there was no association between work-life programs with career progressing, however it had significant impact toward productivity. Further, Nikandrou,
Panayotopulo & Apospori (2008) had also proved that WLB with multiple role commitments had no association with career success. A similar research also came from Cohen et al. (2007), the study for teachers in Israel had found a contrast result with the state in hypothesis that marital status was possible to disturb career progress since their study had proved that work-family conflicts as mediating variable had a significant positive impact to promotion. On the other hand the research also had proved that family work conflict had a significant negative impact on promotion. This means if the work domain interfered with family domain, promotion was possible to be done well but it was not possible if the family domain interfered with work domain. This finding explained that career success was determined by non-work situations besides support from the organization. The present of WLB was believed to be important in the achievement career success, especially for women with their dual role conflict (Ahmad, 1999; Perrons 2003; Bell et al. 2003; Scandura and Lankau 2007; Breauh & Frye 2008; Lewis and Campbell 2008; Russel et al. 2009; Kisilevitz and Bedington 2009).

The Success Career-Life Concordance (SCLC)
Dual roles is a gift to be grateful for a woman. Then it could not be denied that the woman must be able to run both roles equally. On the other hand, women want to work with their best performance and success in a career. In nature, it was possible for women to build a career as a professional (career identity), but a decision in career needed a flexible adjusting according to the situation of their career orientation both towards work and non-work space (Sonnenfeld & Kotter, 1982; London, 1983; Hall et al. 2002; Heslin, 2005). However, in many developing countries as in Indonesia the organizational support for dual role of women like family friendly policies were not present (Purba, 2014), they usually anticipated the WFC with career resilience that working was possible to survive in career (London, 1983). Regardless, the participation in career development program for managerial position, women take a career as a senior (Ollenburger & Moore 1992) and continue to improve their capabilities.

In career of women, being successful both in career and WLB is a challenge but it can be realized since work family culture is going well (Thompson et al. 1999). The WLB issue has been studied widely, but until now it still pursues the support of women's career success. Meanwhile, career success criterias have been developed. The criterias growing and encouraged women to develop their career in harmony with their dual roles. Subjective view of the psychological level of success may encourage individuals to make efforts to face the challenges in achieving personal goals continuously (Locke, 1990 a). Success will also lead to an advancement in the level of personal and self-esteem, identity, involvement (Hall & Chandler, 2005). For instance, successful job may not bring the psychology success. For example, success on many task had an impact on lost time with the family (Bartolome & Evans, 1981), as another example, an assignment as expatriates do not gives pride when returning to the home country (Yan et al. 2002). The objective career success will affect individual satisfaction temporary. A phase of success will be moved to the next performance to get another success, so satisfaction always needed to renewable. Judge et al. 1995 in their paper stated that career success is a positive psychology subjective, in the other word success is the accumulated achievements along experience at work. Relevant to this view, the success of career concept depend on who will give the point (Jaskolka, Beyer & Trice, 1985; Gattiker & Larwood 1990).
Facing the fact that women could not ignore the dual role so that, the criteria for success for women in career often were attributed to the role of outside work. Ability to customize current work situation with current family/non work situation to obtain career success for women proposed as the success career-life concordance (SCLC). The SCLC is the success of a career when woman seeks to balance and concordance career advancement with non-work situation along the phase of career and life. Relevant to the WLB, career motivation and evolution of the career success theories this research proposed five dimensions of SCLC: the suitable career (opportunities to choose the suitable career/profession), achievement and advancement (progressing in knowledge, skill and abilities/KSAs), involvement (participate and contribute to the organization), rewards (remuneration and benefits), pride in a career (success with commitment to family, community and self). Each of five dimensions described below:

The Suitable Career (choose the suitable career and profession)
Every person wants to actualize their abilities in their phase of life. The preferred choice of profession will make person enjoy if realized. A sense of happy in work will occur when a person has desire and feelings that come internally and autonomously, not depend on external dimension which constitute an intrinsic motivation, namely as a self-concordance (Sheldon et al. 2004). The concept of success starting from doing work with happy, were that is relevant to capability, skill or educational background. Education is another human capital attribute that has attracted considerable attention from researchers (Chenevert & Tremblay, 2002), and is a key determinant of access to high-paying jobs and career success (Gattiker & Cohen, 1997; Kirchmeyer, 2002; Melamed, 1995, 1996). Women will choose an interesting job that is relevant with their educational background. In the career development model, individual personal space was associated with career interest and knowledge, Sonnefeld & Kotter, 1982. Career will impact the change of priorities goal plans further influence toward feelings about current work and family situation. Some research showed that WLB had a significant impact on job satisfaction (Malik et al. 2010; Fonseca & Verma 2001b; Saltzstein et al. 2001; Aryee et al. 2005; Anderson et al. 2010). The progress of career and dual roles in women’s life must be working harmoniously if the profession is possible to support the WLB. It means satisfaction in career success may be realized if a woman has a suitable profession and concordance with their dual roles. Then, the SCLC will be measured as how compatible the work or the profession with the passion of women in career, but it could be conducted harmoniously with life or family situations.

Involvement (Participated and Contribute to Organization)
Women as well as men will be satisfied with their career if they are often involved in significant tasks and responsibilities. They will be motivated if they have determined the progress of the organization performance (the Herzberg theory of motivation). But, the discriminations on women until now exist in many organizations as a glass ceiling, and that will decrease motivation (Dreher, 2003). Meanwhile, the career concept build in two components, the first is the goal of employees to participate in the work and subjective commitment, the second is the motivation related to the persistence of the behavior of individuals (Pulkkinen et al, 1999). Success will lead to the increase of the level of personal and self-esteem, identity, competent, and increased involvement in the area of work (Hall & Chandler, 2005). If women are not possible to achieve the position on the hierarchy they are possible to contribute their
good performance to organization. As an intrinsic motivation, the involvement will be satisfied the women in their career.

Achievement and Advancement (Progressing in KSAs)
Although women have equal opportunities with men in the market place, in fact dual roles often force women into what is known as the glass ceiling (Bell et al. 2002; Chenevert and Tremblay 2002). Marital status interferes with women’s progress, as employers are more reluctant to offer jobs to or promote married women due to the likelihood of career interruption (Melamed 1996; Stroh et al. 1996). In this situation women with high career resilience motivation will continuously grow in career with the self-efficacy, self-esteem, need autonomy, adaptability, internal control, need achievement, initiative, need creativity, inner work standards, and development orientation (London 1983). They also tend to be risk taking and learning by itself in progress of skill or knowledge. Woman can realized their progress career through initiative and participate in career development program like training and also increased their knowledge by self learning. The SCLC is being perceived as the growth in appropriate job at work.

Rewards (rewards and benefits)
Recent research has confirmed the importance of career experiences-salary and opportunity in promoting at high levels of career success. Igbaria and Greenhaus (1992) had found that salary and opportunities to promote are positively related to satisfaction, commitment, and intention to stay with the company. Further, a research by Burke and McKeen (1996) in their study on managerial or professional-level women in Canada, that were focusing on employment gaps, interruptions in work history, and career satisfaction had found that the participants with more employment gaps were less satisfied with their jobs and their careers, less involved in their jobs, and less optimistic about career prospects. Another founding in female research indicated that women were more often in non tenure track positions, where they tenured and promoted more slowly, and have paid less than their male colleagues (Hill, Leinbaugh, & Bradley 2005; August & Waltman 2004; Winkler 2000). Although some research suggested that money and position were not the main goals to work for women (Finegold & Mohrman 2001), the research also showed that career success was followed in expectancy of increasing prosperity and position. On the other hand the purpose of women going to work were also in addition to increase revenue because of the satisfaction in career that were the same for both men and women (Baruch, 2004; Schneer & Reitman 1993; Farmer 1985;Regan and Roland, 1982;). Individuals will keep the rationalization that could maintain the spirit, and the balance, when the subjective results were not associated with the success or failure of an objective ones (Nicholson and Waal-Andrews 2005). In fact, women were able to be a leader and occupied the top hierarchy, but when the conditions of current non work were not conducive for promotion, they could actualize themselves became a senior (Ollenburger & Moore 1992; London, 1983). Even women often had constraints to achieve top positions but they may push their effort for good performance. In this case, the organization will manage good remunerations systems and benefits for relevant achievements. Women could concordance career with family situation in their lives but they still had best performances. The SCLC also described by rewards both payment and benefits as well as the contribution and encourage the best performance.
Pride (proud with commitment to organization, family, community and self)
Career success can be associated with career commitment. Career commitment is also very important to advance ability, as a commitment will help the individual to survive in the long time to develop specific skills and will also provide strength in business relationships as a professional (Colarelli & Bishop 1990; Noordin, Williams & Zimmer 2002). Therefore, career commitment is essential in career development and progress. In contemporary view, career commitment is addressed widely not only for person and organization. According to Arthur & Parker (2000), multiple commitment in career covering: industries/sector, association, job and profession, regional, ideology, religion, alumni, supporting group, family, virtual and organization even supervisor, peer, team department, labor union and others. Career satisfaction could be connected to career commitment that influenced individual objectives. For example, woman will boasted their family if they commit and are successful at work and as housewives simultaneously. If woman succeed in many task but the impact on lost time to the family, may make the success meaningless. The lost time could happen in the family, communities, and free time activities if the individual has no commitment for the family, itself or community in their life besides the commitment for the organization or profession. Therefore, the SCLC expressed pride of the family, the community and self on the commitment in career as a criteria of success.

Proposition
The success career-life concordance (SCLC) is the success of career when a woman seeks to balance and concordance the career advancement with non-work situation along the phase of career and life where as the SCLC possible to mediate the effect of work-life balance and career motivation toward job satisfaction.

The Hypothesis of Research
H1: The higher career motivation, the higher success career-life concordance
H2: The higher work-life balance, the higher success career-life concordance
H3: The higher success career-life concordance, the higher job satisfaction
H4: The higher work-life balance, the higher job satisfaction
H5: The higher career motivation, the higher job satisfaction
H6: The success career-life concordance (SCLC) mediates the influence of career motivation and work-life balance toward the job satisfaction.

Figure1: The Model of the SCLC

Source: Processed for this Research
Research Methods
Population and Sample
This study was conducted on female respondents who worked as teachers, lecturers and nurses. Selection of female respondents were based on the premise that women usually have constraints in the career, given their big role in taking care of the household, especially in Indonesia, which still has a traditional view about gender (Hadiz & Eddyono, 2005). Another reason, the profession as teacher, lecturer and nurse were considered to be appropriate for women. Selection of female employees was in the region of Jakarta as the research object was based on the assumptions that work in this metropolitan faced more complex WLB problems and the respondents came from various professions. However, nowadays women who have dual roles can become a successful career woman. The sampling method used is a non-probability sampling (purposive sampling). Nonprobability sampling method conforms to certain criteria (Cooper & Schindler 2000). Respondents (sample) in this study were women who were working, married, had children, and worked for at least 3 years, 3 years criteria meant that the respondent had passed the orientation and could provide a more representative answer because she had been able to follow a career development program.

The population of this study were female employees who had been married and had children. The number of population of this study was relatively difficult to know because the data of married female employees were usually hard to come considering the sample were women with certain criteria. Taking into account the time and cost, the researcher did not count the number population of the study. Questionnaires were distributed to 200 respondents. Only 150 of 200 of the questionnaires were able to use as data because 50 questioners return not complete. According to Roscoe (Sekaran, 2000), in multivariate research (including multiple regression analysis), the sample size should be several times (10 times or more) the number of variables in research. Sampling technique chosen was the convenience sampling with accidental method in which the researcher will distribute questionnaires to potential respondents based on predetermined criteria. The respondents chosen were candidates found during the visit or respondents allowed by the company to complete the questionnaire.

The questionnaire was made on a scale of 1 to 10 and accompanied by an open question as additional supporting question. Validity testing is done by using factor analysis. Testing the hypothesis of the study as described in the research model using Structural Equation Modeling. SEM model was chosen because it was the most appropriate model to test for the simultaneous relationships of latent variables represented by the indicators. The test was performed using AMOS software version 21.00.

Operational variables
1. Work-life balance
WLB is a condition perceived by career women in work and life as a balance of work and family, work and social community, work and leisure for themselves (developed from Crooker 2002; Hudson 2005). Items were measured in 3 dimensions developed from Crooker (2002) which are work-family balance, work-community balance and work-free time activities balance.
2. Career Motivation.
“Career motivations conceptualized here as a multidimensional construct internal to the individual, influenced by the situation, and reflected in the individual's decisions and behaviors” London, 1983. The scale for CM 21 items adopted from Day and Allen where items were combined from the CM measure developed by Noe et al. (1990) 9 items and London (1993) 10 items plus 2 items added by Day and Allen (2004). They were modified items from London (1993) with CM instrument emphasized feelings and attitudes related to work and career and Noe et al. (1990) with CM instrument measures focusing on behavior.

The respondents were requested to complete the Job Satisfaction Survey developed by Paul Spector (JSS; Spector, 1985). Besides, JSS is available for researchers free of charge for use for non-commercial purposes (Spector, 1997). The JSS can yield 10 scores. It assesses 4 facets including recognition, organization climate (coworkers, supervision, working conditions, company policies and practices, remuneration), achievement and advancement, and independent work. The dimensions like coworkers, working conditions, company policies and practice, supervision remuneration, combined in one dimension namely as organization climate satisfaction. Therefore job satisfaction will be measured in four dimensions: recognition, remuneration, climate and independent work.

4. Success career-life concordance
The SCLC is the success of a career when woman seeks to balance and concordance career advancement with non-work situation along the phase of career and life. The SCLC consists of five dimensions: the suitable career (opportunities to choose the appropriate career/profession), achievement and advancement (progressing in knowledge, skill and abilities/KSAs), involvement (participate and contribute to the organization), rewards (remuneration and benefits), pride in a career (success with commitment to family, community and myself).

**Result and Finding**
The questionnaire answers showed that career women responded agreed in a relatively high average, which above of 7 score for all variables. Their answers are approximately the same in job satisfaction and WLB, that score described that women as teacher, nurse, and lecturer have been satisfied in their job. The answer showed that career resilience of the career motivation have received the highest score. This is relevant towards WLB at the balance level of work and family. This means the respondents can solved problems in their career by adjusting the situation between work and non-work space. The results also showed that the SCLC tended high, that also mean if the respondents perceived their career success were in been concordance with their life.

From the results of the confirmatory test it is concluded that all the requirements of goodness of fit had been fulfilled as did the normality of the data. Hypothesis test results also showed hypotheses 2, 3, and 5 were significantly positive and couldn’t be rejected, hypothesis 4 was not significant at alpha 5%, however, for hypothesis 4 it was still acceptable at alpha 7% but hypothesis 1 should be rejected. Here the results of the testing hypotheses by SEM in AMOS software version 21.
Table 1: Hypothesis testing result

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Estimate</th>
<th>S.E.</th>
<th>C.R.</th>
<th>P</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. SCLC ←--- CM</td>
<td>0.040</td>
<td>0.1761</td>
<td>1.232</td>
<td>0.817</td>
<td>par_9</td>
</tr>
<tr>
<td>2. SCLC ←--- WLB</td>
<td>0.442</td>
<td>0.127</td>
<td>3.488</td>
<td>***</td>
<td>par_10</td>
</tr>
<tr>
<td>3. JS ←--- SCLC</td>
<td>0.547</td>
<td>0.122</td>
<td>4.485</td>
<td>***</td>
<td>par_11</td>
</tr>
<tr>
<td>4. JS ←--- WLB</td>
<td>0.214</td>
<td>0.117</td>
<td>1.834</td>
<td>0.067</td>
<td>par_12</td>
</tr>
<tr>
<td>5. JS ←--- CM</td>
<td>0.301</td>
<td>0.154</td>
<td>1.961</td>
<td>0.050</td>
<td>par_13</td>
</tr>
</tbody>
</table>

Source: Processed for this research

Figure 2: Structural Equation Model Full Model Standardized Estimates

Source: Processed for this research

Career Motivation influenced the SCLC
Career Motivation is described by the good understanding and clearence of the career plan, objective, self strength and weakness. In fact career motivation has not significantly influenced the SCLC, with C.R. 0.232 and P 0.817. Apparently respondents are motivated in career and have good career insight, besides they can build career resilience and still keep their career identity but this have no impact towards success career-life concordance. In the other words, hypothesis 1 was rejected. The justification that can be given in that marital status interferes with women’s progress, as employers are more reluctant to offer jobs to or promote married women due to the likelihood of career interruption. This relevant with findings by Melamed (1996) and Stroh et al. (1996). In the other word, career motivation about career insight sometimes is difficult to synchronize with advancement in the SCLC if organization do not support with specific career plans for the individual.
WLB influenced the SCLC
The result found that WLB had significantly a positive impact on the SCLC. It showed the respondents family situation were still in high complexity because they had dynamic family life situations (60% respondents are below 40 years). The complexity of life in the family situations will impact the individual condition in the work place. It is often related to the pressure faced by career women with their dual roles (Crompton and Lyonette 2007). Although, the respondents lived in a complex and dynamic life, however the answers from the questioners had shown that they perceived they still experience well, to balance work with family, community and self. This result described that the ability of women to manage both work and life in fact can realized the WLB. In undertaking WLB, organization should provide employee care programs, which one of the programs is the career counseling. However, it has been put forward as supporting data that almost all respondents stated that company did not provide support facilities pertaining to dual roles. The organization could provide facilities such as child care, breastfeeding and healthy canteen space and also other WLB programs to realize WLB but the participants stated the organization did not provide a child care. As the research found in Jakarta, the woman could do their dual roles by sharing with their spouse and using the housemaid service (Purba, 2014). This relevant to reasearch that who indicated that the ability to manage dual roles can be a solution to realize WLB, Warren (2009). The hypothesis testing result showed the regression coefficient of the WLB had significantly influenced the SCLC. This finding explained that the respondents in this study that worked as teachers, lecturers and nurses had successfully manage their work and life and then perceived that they have the SCLC.

The SCLC influenced Job Satisfaction
The women in this study were professional as teacher, lecturer and nurse. Majority of them stated that they had suitable professions for doing their career in the long term. They chose the profession depend on their educational background. Although they had marital status, the profession was always possible to adjust with the situation of the family demand. They also plan their career well and harmonious with non-work domain. All five dimensions have high scores in the answers of questioners, that means they felt successful in their suitable career, had a possible growth with achievement and advancement, involvement, receive good rewards and proud with the career. Therefore respondents stated that their career was successfull and also harmonious with the situation in their life cycle. The result of the testing hypothesis indicated that the success career-life concordance (SCLC) proved influenced the job satisfaction significantly. The proposition is proven that WLB was possible to increase the success career-life concordance and influenced the job satisfaction, so hypothesis 3 is accepted. The SCLC proved as mediating variable in impact of the WLB toward job satisfaction where the estimated coefficient as mediating is bigger than the direct coefficient. This results supported a decision in career that usually was flexible adjusted according to the situation of their career orientation both in the work and non-work space as career development model of Sonnenfeld & Kotter, (1982), the self-referent criteria (Heslin, 2005), and also as the career success subjective (Hall et al. 2002).
The WLB influenced Job Satisfaction.
The WLB did not significantly to influence Job Satisfaction at the level of 5% of alpha. This finding is relevant to some studies that WLB has no significant impact toward job satisfaction by Rothbard et al. 2005; Reynolds 2005; Marks and Mac Dermid 1996. However, at the level of 6.7% hypothesis can be considered that WLB still have positive impact on job satisfaction as marginal. The result supported the assumptions if woman perceived the work-life balance they would had a job satisfaction when they had the opportunity to concord progress of career with life. As Betz & Fitzgerald (1987) and Whitmarsh et al. (2007) discussed, woman usually synchronized their career progress with family pattern situation. This research was also relevant with Nikandrou et al. (2008) that stated however, women will always work better and happy when they were supported by the family. The constraint will be raise if the work-life conflict could not be avoided (Van Vianen and Fischer 2002). So, the results confirm that the WLB influenced job satisfaction at marginal level. Therefore, it is needed to increase the antecedent variables of the WLB like the family friendly policies to drive the SCLC then it will realize job satisfaction.

The career motivation influenced job satisfaction.
Hypothesis 5 is career motivation could increase job satisfaction, in fact proved significantly. The result is relevant to the concept of self-concordance motivation that was proposed by Sheldon, Ryan, Deci & Kasser 2004. Individuals would be interested in working with joy when driven by autonomous motives from themselves. This support the study found by Day & Allen, 2004 that individuals with a high motivation in career will be able to perform well and will have an impact on job satisfaction. Strong career motivation can represent positive feelings towards the career that had been choosen, of course this is associated with the experience and activities that are undertaken in a career come from internal efforts (Locke, 1976; London, 1990; Payakachatet et al. 2011). Further, this research also confirmed the finding of Springer, 2011 that career woman who satisfied in work will be more productive and effective than those who were not satisfied.

Discussion
This research has indicated that the effort to manifest WLB perceived by women who have a profession as teacher, lecturer, and nurse is relatively high. Although the hypothesis testing result proved that WLB has a positive significant influence on SCLC and job satisfaction, however, this finding is more interesting to discuss. The profession of respondents in this study generally were known have regular working hours, but their tasks did not demand busy hours, like working as a bank employees. Especially, working as a lecturer or a teacher was possible to arrange the tasks and have opportunities to arrange the time to finish the tasks. Except the nurses, they have shift hours. The characteristics of job lecturer and teacher also have functional career and are possible to achieve the position on top as functional job. Meanwhile, from the data in the questioners the participants perceived that the balance in work and life were not realized by organization facilities, but may be associated with the characteristics of the job. The respondents were strong in career motivation and relatively at high score for SCLC and WLB. However, the career motivation was not associated with SCLC. This means career motivation in case of this research could not determinant SCLC. As a known, the career development in the academic Institution was clear, that did not tend to achieve a position in hierarchy. So, the motivation drives to advance the progress of functional position and improve the knowledge.
Finding in this study showed that women will received their dual roles and make the solution to balance their work and non-work situations. The proposition had proposed that WLB possible to increase the success career-life concordance is proved by testing hypothesis. The SCLC influenced the job satisfaction is proven too. Then, the SCLC has proved as a mediating variable, it has an impact on the WLB toward job satisfaction where the estimate coefficient as mediating is bigger than direct coefficient.

From this research, there are some managerial implications. For the participants like teachers, lecturers and nurses, they perceived that they have a suitable career. They could manage the career development plan if they needed to concordance the career with the family/non work situations. This assumption make from the descriptions at the data from the answers of the questioners which noted, although the respondents are living far from the work places, and there are no childcare facilities and parental leave days, but they were still perceived that they had high score at the WLB. The respondents also perceived that they had a career success. However, this finding is not in accordance with presumption that the WLB will be supporting by the WLB programs/family friendly policies in organizations. But, the facts reflected that it is important to recommend organizations to pay attention for WLB programs since WLB programs are not presented in many organizations in Indonesia. This study has examined that career women realized their success career life concordance a confirmed significant influenced by WLB although the WLB programs are not presented by organizations. The role of Government to make regulations about the WLB problems is urgent in Indonesia.
References


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Financial Slack and Firm Performance during Economic Downturn

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Abstract
This conference contribution examines whether financial slack has an impact on performance in the particularly hostile environment of an economic downturn. Organizational theory posits that the impact of high levels of slack on performance should be positive during such a time, as excess resources buffer the core of the firm from external shocks. Using the most recent economic downturn in Germany, the paper investigates whether firms that built up excess resources up until the onset of the crisis experience superior performance during the downturn. Financial slack is measured along the following dimensions: The proportion of current assets to current liabilities, the ratio of equity to total debt, and the ratio of general and administrative expenses to sales (SG&A). These proxies are measured over a time period of four years prior to the crisis. Financial performance is then evaluated over the duration of the downturn. The results show that high pre-crisis levels of liquidity do not impact performance during a crisis. However, the findings support the view that high pre-crisis levels of debt have a negative impact on firm performance during the latest economic downturn. For slack stemming from the ratio of SG&A to sales, the association with performance was found to be positive, albeit at a declining rate. Both findings support the hypothesis that financial slack has value during an economic downturn. The originality of the approach lies in the evaluation of both linear and curvilinear performance effects of financial slack for German firms during an economic downturn.

Keywords: Financial flexibility, Financial slack, Economic crisis, Capital structure
1. Introduction

A key challenge of effective management is to apply a firm’s available resources so as to minimize the impact of exogenous threats on the organization while attempting to capture the opportunities. In addition to considering the relative attractiveness of available financial instruments, corporate decision making needs to strike a balance between, among others, the need for (future) adaptability and current and future performance. Different financial resource configurations arise as a result, and empirical studies find that firms use internally available cash, debt, or equity issues in a manner that varies greatly, even within one industry (Meier, Bozec and Laurin, 2013).

Such diversity is difficult to fit in with dominant theories on optimal choice of capital structure, as financial theory clearly cannot explain the cross-section of balance sheets found among firms. A potential explanation lies within firms’ preference for financial flexibility. Surveys have found such flexibility to be of great concern to managers, as it secures the option of making future investments (see e.g., Bancel & Mittoo, 2004; Graham & Harvey, 2001). If the likelihood of significant future capital needs is sufficiently great, managers are reluctant to borrow today (DeAngelo & DeAngelo, 2007). Accordingly, the presence of excess resources—an important source of operational and financial flexibility—as an enabler of corporate financial performance has received ample attention in organizational literature. At the same time, empirical evidence on the relevance of financial flexibility is still scarce (De Jong, Verbeek, & Verwijmeren, 2012).

This study focuses on financial flexibility and whether it provides value to firms. Financial flexibility is thereby understood as excess financial resources, such as debt capacity and cash reserves, also known as financial slack. Financial resources offer a high level of transferability to profit-yielding activities (Amit & Schoemaker, 1993). A firm that possesses such resources is capable of, e.g., funding new profitable projects without the need to raise funds externally, leaving it in a better position than a firm locked into a single course of action (Foss, 1998). As such, firms with high levels of financial slack may be able to enjoy greater flexibility in the application and adaption of their resources, widening the range of viable options available to management. In contrast, firms without such flexibility may face difficulties in responding advantageously to external changes in turbulent market conditions.

If financial flexibility gained through the presence of slack resources provides options for adapting to unanticipated changes, such flexibility should reach a higher value during times of increased uncertainty. The most recent economic downturn with tighter credit standards on the supply side and as a result, curtailed financing activity, represents a typical situation where the benefits of financial slack should attain a premium. This study puts this expectation to the test in a German context, examining whether German firms with high levels of financial slack outperformed their peers during the recent economic downturn. A confirmatory outcome would lend support to the notion that financial flexibility has value. In turn, this would partially explain why firms deviate from theories of optimal capital structure.

The findings show that pre-crisis high levels of available slack, operationalized as the current ratio, do not have a significant impact on firm performance during a financial
crisis. However, low (high) levels of debt (potential slack) at the onset of the crisis as well as high levels of absorbed slack had a positive impact on firm performance during the crisis. This supports the hypothesis that financial slack has value.

The article relates to various other studies on financial slack, as the topic has gained popularity in recent years. Gamba and Triantis (2008) model the effect of financial flexibility on firm value. Latham and Braun (2008; 2009) examine the impact of financial slack on the performance of U.S. software firms during the early 2000s recession. Meier et al. (2013) examine whether U.S. companies that built up financial flexibility ahead of the most recent financial crisis experienced superior stock returns. The approach taken here is different in that three types of financial flexibility and their potential curvilinear associations with performance are considered. Also, to the best of our knowledge, the study is the first to empirically examine the value of financial slack during a crisis for German firms.

The article is organized as follows: Next, the theory and literature on the link between financial flexibility and firm performance is presented. The following section describes the methodology including data, sample selection, and empirical model. The fourth section presents the results before a conclusion is drawn.

2. Related Literature

Capital Structure

Finding the optimal configuration of firm resource based through different means of financing constitutes a key challenge for managers. Financial theory posits two major theories on the optimal choice of debt versus equity (Meier, et al., 2013): The static trade-off theory and the capital structure irrelevance principle.

The static trade-off theory, which goes back to Kraus and Litzenberger (1973), suggests that debt has an advantage over equity for corporate taxes, as interest payments are tax deductible. At the same time, debt comes with a disadvantage as it implies a probability of financial distress (bankruptcy costs and indirect costs of financial distress). The theory suggests that firms will use debt up to the point where the tax advantage and the disadvantage in the shape of bankruptcy costs balance out.

The capital structure irrelevance principle, developed by Modigliani and Miller (1958), implies that in the absence of tax and bankruptcy costs and assuming efficient markets, firms do not discriminate between financing sources. In the presence of taxes, firms are expected to use debt instruments, as interest payments are tax deductible. For this reason, debt should be preferred to equity.

These theories are contrasted by empirical evidence showing that the use of internally available cash, debt, or equity issues (or a combination thereof) deviates from the optimal choice of debt versus equity as given by theory (Meier, et al., 2013). On average, firms have been found to operate with less leverage than what could be expected based on the trade-off between tax shields and bankruptcy costs (De Jong, et al., 2012). Gamba and Triantis (2008) model the effect of financial flexibility on firm value and argue that firms may benefit from holding cash reserves in difficult times, as they enable firms to benefit from short-lived investment opportunities. Opler,
Pikowitz, Stulz and Williamson (1999) use similar arguments to explain why risky firms hold higher ratios of cash to non-cash assets. Marchica and Mura (2010) use a sample of UK firms and conclude that firms with below-target leverage make more and better investments.

Overall, empirical evidence has found reality to be deviating from the major theories on financial structure. As pointed out by Meier (2013), this does not indicate that the theories are valid, though they fail to explain the cross-section of capital structures that are observed empirically. A potential explanation for this phenomenon is firms’ preference for financial flexibility. Survey findings by Graham and Harvey (2001) imply that chief financial officers (CFOs) in the U.S. rank financial flexibility as the single most important determinant of capital structure choice. Similar results were produced for European firms, with Bancel and Mittoo (2004) and Brounen, de Jong and Koedijk (2004) reporting that managers rank financial flexibility as being a very important consideration when deciding on capital structure.

The Perils and Pitfalls of Financial Slack

Why do firms seem to value financial flexibility? Since financial resources offer a high level of transferability to profit-yielding activities (Amit & Schoemaker, 1993), a firm that possesses such a resource cushion is assumed to be able to respond advantageously to unanticipated adverse changes in its environment, leaving it in a better position than a firm locked into a single course of action (Foss, 1998).

While this classification of slack is rather well established in literature, empirical evidence on its relevance for financial performance has still not reached a strong consensus. One possible reason is that financial slack is a multi-theoretic approach, and that the proposed effect of slack on the organization depends on how the different theories predict that managers will use slack resources (George, 2005).

Proponents of slack have identified four main functions of slack (Chiu & Liaw, 2009): Firstly, according to the resource-based view, a firm with unused or excess resources can leverage these in order to benefit from external opportunities, thereby fuelling firm growth (Nohria & Gulati, 1997; Penrose, 1959). Secondly, behavioral arguments suggest that slack positively impacts experimentation and risk taking, thereby facilitating innovation and change and creating competitive advantages (Bourgeois III, 1981; Nohria & Gulati, 1995, 1997). Thirdly, firm behavioral theorists suggest that slack acts as a buffer between organizations and external contingencies, smoothing a firm’s adaption to environmental change and thereby improving firms’ long-term performance (Cheng & Kesner, 1997; Tan & Peng, 2003). According to this view, firms insulate their technical cores with input and output buffers (Thompson, 1967). In case of environmental disruptions, the production process can resort to these buffers, limiting the need to respond otherwise to temporary changes. The slack resources thereby offer a margin of error (Cheng & Kesner, 1997). Along these lines, organizational research therefore hypothesizes a positive impact of slack on the performance of firms, at least before slack reaches an excessive level. Finally, behavioral theory regards firms as coalitions of actors (Cyert & March, 1963). Within the organization groups of actors have different views on organizational problems, resulting in separate and often conflicting operational goals. When resources are scarce, organizational members spend time on forming coalitions to bargain for their
share of the limited resources. If resources are more abundant—i.e., slack exists—the need for such political posturing is assumed to decrease. Researchers have therefore argued that the possession of organizational slack will alleviate intra-firm conflicts, as different parties can follow their own agendas (George, 2005).

Other scholars contend that financial slack represents a competitive disadvantage. Organizational economists and agency theorists identify slack as a source of inefficiencies (Jensen & Meckling, 1976; Leibenstein, 1980). Firms are seen as entities with different degrees of resource constraints (Baker & Nelson, 2005; George, 2005). Due to these constraints, firms are likely to make better use of their resources than firms facing fewer restrictions (Baker & Nelson, 2005; Starr & Macmillan, 1990). By finding ways to stretch and leverage their available resources, firms become more efficient, thereby enhancing their performance (George, 2005). Supporters of the agency view take a similar stand toward organizational slack, and are particularly concerned with its potential impact upon investment and financing decisions. Similar to Jensen’s (1986) free cash flow hypothesis (some conceptual differences between the two measures notwithstanding) financial slack is viewed as a source of resource misallocations and potential agency problems. Managers of a firm with free cash flow may be tempted to invest in negative net present value projects instead of distributing funds to shareholders. Likewise, over-investment may result from having too much financial slack, the presence of which makes it easier for managers to pursue self-serving projects that can jeopardize performance, such as maximizing expense accounts, building slack into budgets, or engaging in empire-building (Dunk & Nouri, 1998; Fama, 1980). Due to these negative impacts on the organization, the optimal level of slack is zero (Love & Nohria, 2005; Phan & Hill, 1995). A complete elimination of slack, however, seems illusionary: Agency theorists argue that not only do managers accrue slack in situations beyond the principal’s control, they will loathe to reveal it (Caves, Krepps, White, & Farber, 1993).

The empirical research on the value of financial slack mirrors the contrasting treatments of the concept in literature: The majority of studies seem to find either a positive or a curvilinear relationship with financial performance. A meta-study by Daniel, Lohrke, Fornaciari and Turner (2004) demonstrates this ambiguity, finding discrepancies among the 66 inquiries included. In response to these different views, recent research has examined the slack-performance relationship across different contingencies, arguing that both theoretical perspectives may be justified, albeit under differing circumstances. For example, Tan and Peng (2003) argue that companies exhibit agency problems when absorbed slack is abundant, while organizational arguments come to bear for available slack, explaining a positive relationship with performance. The question of how much of which kind of financial slack to hold in which environmental circumstances is central to such studies.

Financial Slack in an Economic Downturn

Studies within financial management hold the position that liquidity and adequate financing opportunities are particularly crucial to a company’s survival and performance during an economic downturn (see e.g., Geroski & Gregg, 1997; Latham & Braun, 2009; Richardson, Kane, & Lobingier, 1998). This view is founded in the observation that an economic downturn usually brings about great changes to the aggregate liquidity. A crisis period is often preceded by a credit crunch—a period
characterized by tight money and high real interest rates, occurring around a cyclical peak in productive activity (Johnson, 1999). Brought about by a mix of high loan demand and a strained funds supply, a credit crunch spans the final months of an expansion as well as the early months of an ensuing recession. Public and private equity markets typically dry up, meaning that finding financial support for investment projects becomes more challenging (Park & Mezias, 2005; Perez-Quiros & Timmermann, 2000). Such changes in the aggregate liquidity will impact the default risk of firms, as most companies are to some extent dependent on accessing external financing.

Acting as a rainy day fund with a high level of flexibility in its application, slack may therefore be of particular importance during an economic downturn. While some slack resources are not unique by themselves, unabsorbed slack such as cash could be used to acquire resources critical to competitive advantages (Latham & Braun, 2008). Cheng and Kesner (1997) therefore assert that “the presence of slack resources serves a positive role by helping firms withstand severe economic recession” (p. 3). Latham and Braun (2008; 2009) examine the performance of U.S. software firms during the 2001 recession and subsequent recovery and conclude that slack can be beneficial to firm performance during recession. Using a sample of firms from Hong Kong and Singapore during the Asian economic crisis of the late 1990s, Wan and Yiu (2009) examine the role of slack for performance. They assert that the arguments of organization theory on the effect of unabsorbed slack on performance are valid during periods of environmental jolt. Slack is assumed to be particularly salient during this time, as slack resources cushion the impact of environmental change and allow the firm to quickly capture new opportunities as they arise. Their findings support these hypotheses, with unabsorbed slack positively influencing performance during crisis.

On the whole, extant empirical research on slack during economic downturns, although still rather limited, posits a positive association between the different forms of pre-crisis slack and performance during the crisis.

The most recent historical economic crisis was of considerable amplitude and limited non-financial firms’ access to capital. In the U.S., Ivashina and Scharfstein (2009) found bank lending to large borrowers to drop by 47 percent at the most. Busch, Scharnagl, and Scheithauer (2010) show a similar slowdown of bank lending for Germany, where strong negative loan supply shocks to non-financial corporations were observed during the first quarters of 2008. A small number of papers analyze the effects of the most recent financial crisis empirically, albeit mostly in a U.S. context. Campbello, Graham and Harvey (2010) question 1,050 Chief Financial Officers (CFOs) in 39 countries to assess whether their firms are credit constrained during the global credit crisis of 2008. They find, among other results, that the inability to borrow externally restricted investment in attractive projects for 86 percent of U.S. CFOs. Similar findings were made for European survey respondents. Simutin (2010) reports a positive relationship between corporate excess cash holdings and future stock returns. However, during market downturns, firms with more excess cash are found to have higher market betas and lower returns. While such firms invest more strongly in the future than their peers, this is not reflected in a stronger future profitability. Simutin (2010) therefore concludes that “I find no relationship between excess cash and future profitability, hinting at a possibility of overinvestment by high excess cash firms” (p. 1210). Meier et al. (2013) examine U.S. firms and the impact of...
the financial slack on stock returns during the economic crisis. They find no positive influence of high pre-crisis levels of cash, whereas high pre-crisis levels of debt impact firm value negatively.

In short, there is theoretical and some empirical support for the view that several of slack’s proposed functions should come into their own during an economic crisis. Accordingly, this article expects to find a significant association between slack before a crisis and performance during a subsequent economic downturn, either in the shape of a linear or a curvilinear relationship.

3. Methodology

To analyze the value of financial slack, three common dimensions of the financial slack concept are addressed. Building on the definition of a resource cushion, researchers have highlighted different dimensions of the financial slack concept, such as the accessibility of slack (e.g., immediately vs. deferred; Finkelstein & Hambrick, 1990) or the amount of managerial discretion offered (Sharfman, Wolf, Chase, & Tansik, 1988). Different types of slack have resulted and, in consequence, a wide array of financial ratios has been used in empirical studies to capture the phenomenon quantitatively. A comparison between the operationalization of slack used by e.g., George (2005) versus Tan and Peng (2003) makes this issue transparent.

Out of all possible options, the most widely used classifications of slack seem to be available, absorbed and potential slack (Cheng & Kesner, 1997; Daniel, et al., 2004). These three types of slack are differentiated between based on their “ease of recovery”. Extant literature most often defines available slack as the difference between available working capital and required working capital (see e.g., Bourgeois III & Singh, 1983; Bradley, Wiklund, & Shepherd, 2010; Bromiley, 1991; Chiu & Liaw, 2009; Geiger & Cashen, 2002). This difference is known as the current ratio, as is demonstrated in the overviews given by both Daniel et al. (2004, pp. 568-570)—where 14 out of 23 studies applied the current ratio to measure available slack—and Tan and Peng (2003, p. 1252). To keep in line with previous inquiries and to facilitate cross-study comparison, this study also applies the current ratio, measured as current assets divided by current liabilities. Potential slack indicates the firm’s ability to gain external resources (Hambrick & D’Aveni, 1988). It is common to capture this variable by using a leverage ratio; here, the ratio of equity to total debt is applied. Finally, Absorbed or recoverable slack is defined as excess resources tied up in salaries, overhead expenses and other administrative expenses, meaning that it requires some effort to access. This type of slack is commonly measured as the ratio of general and administrative expenses (SG&A) to sales (Bromiley, 1991; Cheng & Kesner, 1997; Daniel, et al., 2004; Iyer & Miller, 2008; Singh, 1986; Wefald, Katz, Downey, & Rust, 2010).

The proxies are measured for a sample of German firms as an average over the four years prior to the crisis, from 2004 to 2007. The sample was drawn from German firms as most of the previous studies concerning financial slack and economic crises mentioned throughout this paper focus either on U.S. or Asian firms. Balance sheet and income statement information is taken from Orbis, and financial firms as well as firms operating in regulated industries are excluded, such as utilities. Furthermore, the sample is restricted to large private and publicly-listed firms with an annual turnover...
greater than €50 million\textsuperscript{1}. This yields a total sample size of 322 companies. A separate variable was added to control for industry effects.

In keeping with previous relevant research efforts, the choice of performance measure was narrowed down to accounting-based ratios (George, 2005; Latham & Braun, 2008; Love & Nohria, 2005; Markides & Williamson, 1994; Wan & Yiu, 2009). Within this group of performance measures, return on assets (ROA), return on equity (ROE) and return on sales (ROS) are common. ROE was ruled out due to its sensitivity to capital structure differences. ROA and ROS were found to be highly correlated. However, given that one of the main variables in the analysis is assessed relative to sales to control for firm-specific variations due to size, regression equations using ROS as the dependent variable may be a mathematical artefact (Farris, Parry, & Ailawadi, 1992; Hitt, Hoskisson, & Kim, 1997). ROA was relied upon as performance measure and resources. It was measured as an average over the period of 2008 to 2010.\textsuperscript{2} In addition, ROA during 2007 was added as a control variable.

In a second step, the association between the independent and the performance variable was examined using heteroscedastic t regression analysis. As the variables included in the analyses represent accounting or financial ratios, extreme values that shift the variables' distribution away from the normal distribution are more likely to occur. The accounting construction of the numerator and denominator in the case of financial ratios is responsible for such extreme values, and the departure of financial ratios from normality is well-documented (Barnes, 1982; Lau, Lau, & Gribbin, 1995; McLeay, 1997). Both accounting and statistical literature have suggested the t distribution provides a good fit to ratios (Taylor & Verbyla, 2004). The t distribution has more probability in the tails than the normal distribution, meaning that it accommodates the fact that extreme values are more likely to occur for ratios. Using the t specification to model a regression is therefore a quite widespread way of making an analysis more robust and of modelling possible heteroscedasticity, which is a common occurrence in cross-sectional regressions.

4. Results

Table 1 provides descriptive statistics and correlations for the variables used in the analysis. As the table suggests there were no high correlations between the study variables and between the two performance measures. In addition, collinearity diagnostics were run, finding no statistically significant issues with values of variance inflation factors (VIF <.2 or >10). As such, multicollinearity was not a problem in the study. The variable of available slack was transformed using power transformation to reduce skewness, as its standard deviation diverges rather strongly from the mean.

\textsuperscript{1} According to the Basel Capital Accords, a SME is defined as a company with reported sales of less than €50 million (Basel Committee on Banking Supervision, 2013).

\textsuperscript{2} Any precise dating of economic downturns poses a challenge. According to The Centre for Economic Policy Research (CEPR), the Eurozone economic crisis began in first quarter of 2008 (2014).
Table 1 offers the results from the three-step hierarchical regression analyses. Profitability was regressed on all explanatory variables after controlling for the industry dummy and past growth, as reported in Table 2. The log likelihood associated with the entry of the main effects and the quadratic terms is significant at the .05 level or better in all three models. As indicated by Model 1, while no predictions were made for the impact of the control variables onto performance, past performance played the role it was expected to. The adverse impact of environmental hostility presents a greater threat to firms which might already be struggling. The industry dummy was not significantly associated with performance at the time of an economic downturn.

Model 2 reports the results for the effects of the main explanatory variables. With the exception of available slack, all are highly significant. The findings suggest that the presence of absorbed slack is positively associated with performance ($p < .05$), while potential slack exhibits a negative association with performance ($p < .001$), which corresponds to a positive relationship between performance and debt levels. The linear model therefore suggests that firms with high levels of absorbed financial resources and debt perform better than their peers during an economic downturn.

This picture is nuanced by Model 3, which considers possible quadratic effects. While available slack remains insignificant throughout, the quadratic terms of absorbed and potential slack are both highly significant ($p < .05$ and $p < .001$, respectively). For absorbed slack, the quadratic term has a negative coefficient, while the single term is positive, meaning that the negative effect dominates at low levels of absorbed slack, while the positive effect dominates at high levels. This results in a concave or inverse-shaped U. The turning point lies at 86 percent, which is more than a standard deviation from the mean. Since the median is slightly lower than the mean in this case, for most firms in the sample, the association with performance is therefore positive, but at a declining rate.
Table 2: Regression results.

In the case of potential slack, the single term is negative with a positive quadratic term. This means that at low levels of potential slack, the negative effect will dominate, while at higher levels, the positive primary effect takes over. This produces a convex or U-shaped relationship. The turning point lies at 64 percent, which is well within the relevant range of the variable (between 2 and 97 percent). This means that high (low) levels of debt (potential slack) are negatively associated with performance, while low (high) levels of debt (potential slack) exhibit a positive association with performance during an economic downturn.

5. Discussion and Conclusion

Overall, the findings lend support to the central proposition that the financial slack has value in difficult market conditions. The financial flexibility offered by higher levels of financial slack showed a strong impact on performance during an economic downturn, as uncertainty was at its highest. The lack of a significant association between available slack and performance is consistent with recent findings of Meier et al. (2013), who find excess cash and cash equivalent resources to have no impact on firm value during the most recent financial crisis. Simutin (2010) reports similar results. Combined, such findings support the notion that the impact of slack on performance may not always be potent, justifying a contingency approach.

None of the aforementioned studies examine the possibility of non-linear effects during a declining economic environment. Studies that do identify a non-linear relationship between financial slack and performance have found the shape of the association to be inverse curvilinear (Chiu & Liaw, 2009; George, 2005; Wefald, et al., 2010). In this case, the relationship between potential slack and performance was
found to be U-shaped. Two aspects modify what appears to be a counterintuitive result. Firstly, the previous studies examine the slack-performance association in environments of higher munificence, while this study argues that the relationship will depend upon the circumstances. Secondly, the finding of a U-shaped association between potential slack and performance empirically supports Bromiley’s (1991) commonly cited theory that firms with a medium level of slack will be stuck in the middle. Available resources in the form of slack can constitute a strategic advantage, as a firm with slack can utilize opportunities not available to firms without such resources. Alternatively, a firm with low levels of slack may miss out on such opportunities and will seek to improve performance through improved management, leading to cost reductions and in turn higher performance. Bromiley (1991) was one of the first to detect a curvilinear relationship between slack and performance, holding that either action—taking advantage of opportunities via slack or managing more carefully due to a shortage of slack—should result in performance improvement. This seems to be the case for the sample firms during the economic crisis. An additional interpretation of this finding would be that a threshold to potential slack exists (Chiu & Liaw, 2009). Performance only improves as long as the level of financial slack held by a firm exceeds a certain threshold. If this is not the case, no financial slack would be preferable.

The inverse curvilinear relationship identified between absorbed slack and performance is in line with behavioral arguments of slack, which relate higher levels of slack to the beneficial effects of experimentation, risk taking, and coalitions among managers. Previous inquiries have also found organizational theory to have higher validity when dealing with absorbed slack. In their meta-study, Daniel et al. (2004) found a positive impact of absorbed slack on performance. Miller and Leiblein (1996) sampled between 295 and 445 U.S. firms in four periods and found firm performance to be strengthened by the presence of recoverable slack. Tan and Peng (2003) examine Chinese state enterprises in 1991-92 and concluded that organization theory generates stronger predictions when dealing with unabsorbed slack.

Although hardly a unique resource, slack may play an important role in firm performance and add to the explanatory power of resource-based arguments. The results reflect that different types of slack may exhibit different associations with performance. To enhance performance, balancing the types of financial slack is therefore a prerequisite, and both low- and high-discretion slack should be optimized. Combined, these findings make it clear that the relationships between slack and performance are heterogeneous, justifying an analysis according to type of slack. Furthermore, the impact of slack on performance may not always be as potent at all times, favoring a contingency approach.

It is likely that the impact of slack on performance will vary across industries. Although the present analysis controlled for industry effects, further studies might focus on several types of slack within a single industry.
References


Prolegomena on Co-Evolution of Internal and External Selection

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Abstract
The paper content is embedded in an evolutionary approach in management, in which the processes of selection, variation, and retention are significantly salient, however, the logic of selection and co-interrelated adaptation is primary. The paper focuses on external and internal selection. Moreover, the paper concerns co-evolutionary integrating research perspective. Both internal and external selection mechanisms reveal at many ontological and epistemological levels and, what is the most critical, they are under co-evolutionary dynamics influence. Undoubtedly, the external and internal selection co-evolution phenomenon merits further exploration. The purpose of the paper is to order various proposals regarding multilevel and co-evolutionary relationships between internal and external mechanisms in terms of an evolving organization. The most important value of the paper is: a) recognizing the difference between internal and external selection in terms of the driving force sources, b) recognizing the levels at which both internal and external selection occurs, c) recognizing what constitutes both internal and external selection units, d) establishing the most salient hallmarks of co-evolution phenomenon e) considering whether there is any interrelationship between internal and external selection co-evolution and adaptation, f) considering whether the mechanisms of internal and external selection (separately and jointly) are mutually interdependent and co-evolutionary, g) recognizing what might constitute the determinants of external and internal selection co-evolution, and finally h) recognizing what are the consequences of internal and external selection co-evolution for interdependency between the organization and environment. The method has been used is the critical comparable analysis of literature studies and evolutionary scholars’ research.

Keywords: evolutionary approach, co-evolution, external and internal selection, multi-level selection
Introduction

‘The view of evolution as chronic bloody competition among individuals and species, a popular distortion of Darwin's notion of 'survival of the fittest,' dissolves before a new view of continual cooperation, strong interaction, and mutual dependence among life forms. Life did not take over the globe by combat, but by networking.’

(Margulis & Sagan, 1997)

The paper is embedded in the evolutionary thought that emerges from evolutionary economics (the first evolutionary models blossomed in the 1970s) and from some streams in sociobiology and certainly influences both management, especially strategic one, and organization theory. The milestone of evolutionary analysis constitutes the work of Nelson & Winter (1982) presenting routine-based models of action, where the routines are the most salient subject of evolution. The most important hallmark of the evolutionary theory as well as simultaneously the overarching scheme for the paper is the VSR (variation-selection-retention) model. The starting point and frame of reference incorporated in the paper is, however, selection logic and its different levels of analysis. ‘(...) certainly the exploration of multilevel selection processes is key heading, both for empirical work and modelling. The question of where routines and capabilities come from, the learning processes and contextual factors that give rise to them, deserves vastly more attention that it has received’ (Murmann et al., 2003, p. 8).

Simultaneously, the paper content concerns the philosophical, biological and even cosmological, astronomical, and technological concept called co-evolution that is also the subject of considerations in evolutionary theory and organization science. Finally, the paper involves the issues connected with explaining phenomena ranging from the micro to macro levels of organizational analysis, especially in terms of the units in the multi-level selection analysis.

The purpose of the paper is to order various proposals regarding multilevel and co-evolutionary relationships between internal and external mechanisms in terms of an evolving organization. The aim of the paper has been realized attempting to find the answer for the following research questions: a) what is the difference between internal and external selection in terms of the driving force sources?, b) at which levels both internal and external selection occurs?, c) what constitutes both internal and external selection units?, d) which are the most salient hallmarks of co-evolution phenomenon? e) is there any interrelationship between internal and external selection co-evolution and adaptation?, f) are the mechanisms of internal and external selection (separately and jointly) mutually interdependent and co-evolutionary?, g) what might constitute the determinants of external and internal selection co-evolution?, and h) what are the consequences of internal and external selection co-evolution for interdependency between the organization and environment?

The paper is conceptual and its content is exploratory so as to enhance the state of the art in the field of selection logic in the evolutionary approach.

Additionally, it is organized fourfold. The first section presents theoretical foundation of considerations applied. Then, the essence of internal and external selection as well as the units and levels of internal and external selection analysis have been illustrated.
It has led to the description of co-evolution in terms of external and internal selection. Finally, chief conclusions have been highlighted.

Theoretical foundations

The paper is embedded in the evolutionary thought that emerges from evolutionary economics (the first evolutionary models blossomed in the 1970s) and from some streams in sociobiology and certainly influences, apart from a number of different fields, both management, especially strategic one, and organization theory. A leading model in the evolutionary stream draws heavily on the variation, selection, and retention mechanisms (VSR model) (Campbell, 1960, 1969; Aldrich, 1979), especially concerning the level of entire organizations and trying to systematize how organizations, industries and their structures change over time and deal with a major discontinuity. The variation occurs mainly as a result of entrepreneurial innovations resulting in developing new objects or adapting existing ones. The variation mechanism is expressed by continuous renewal and new objects constitute the primary source of that process. Then, selecting objects is based on the degree of their adaptation to changes in environment that constitutes a primary evolutionary agent in that case. The result of selection might be either the retention or death of objects. According to Aldrich (1979), organizations retain or fail, as they are more or less adapted (fit) to the particular selective environment. In line with that thought, organizations possess or not suitable traits for the particular selecting environment irrespectively of managers’ intentions due to those traits. Simultaneously, the evolutionary approach is under the influence of the Nelson & Winter’s (1982) body of work focused on routine-based models of organizational action embedded in the considerations of Cyert & March (1963, 1972), March & Simon (1958), Simon (1976), and Schumpeter (1934, 1942, 1950).

Simultaneously, the paper content concerns the philosophical, biological and even cosmological, astronomical, and technological concept called co-evolution that is also the subject of considerations in organization science and the evolutionary theory (the essence of co-evolution in organization science and the evolutionary approach has been presented in the paper’s section ‘Co-evolution of internal and external selection – preliminary ascertainment’). Regarding the co-evolution aspects from philosophical perspective, the exemplary issues being considered are as follows: rough waters between genes and culture (Mulder & Mitchell, 1994), gene-culture co-evolution and the nature of human sociality (Gintis, 2011), or integral emergence versus co-evolution permeating also sociology and psychology fields (i.e. Goodwin, 1978, 1994, 2000). According to biological aspects of co-evolution that were briefly described by Darwin (1859, 1877), co-evolution is used to describe the situation where at least two species reciprocally affect each other's evolution. For instance, an evolutionary change in the morphology of a plant might affect the morphology of an herbivore that eats the plant and so forth. Co-evolution is feasible to occur at many biological levels when different species ecologically interact with one another. These ecological relationships include predator/prey and parasite/host, competitive species, and mutualistic species. One of the most frequently cited co-evolution models is Van Valen’s Red Queen’s Hypothesis, which states that ‘for an evolutionary system, continuing development is needed just in order to maintain its fitness relative to the systems it is co-evolving with’ (Van Valen, 1973). Whichever organism that is not able to keep up with the other will be eliminated from their habitat, as the species with
the higher average population fitness survives. Due to biological co-evolution applications in astronomy, Jantsch (1980, 1981) attributed the universe evolution, ranging from cosmic and biological evolution to sociocultural one and viewing in terms of the unifying paradigm of self-organization, to co-evolution aspects. Moreover, the Jantsch’s work is focused on on the interaction of microstructures with the entire biosphere, ecosystems, etc., and on how micro- and macro-cosmos mutually create the conditions for their further evolution. Taking into consideration biological co-evolution incorporation to astronomy, current theories insinuate that black holes and galaxies develop in an interdependent way analogous to biological co-evolution. For instance, Britt (2003) states: ‘If co-evolution reigns, as most researchers believe, then two older (but not-dead-yet) theories are wrong: that a galaxy forms first and directs the development of a black hole; or that a black hole is generated first, providing the seed around which a galaxy can coalesce. It is also possible that different types of galaxies form by different means, and that coevolution will only be found to describe one path to galactic adulthood.’ In terms of technological issues, co-evolutionary hallmarks are used in some algorithms, namely co-evolutionary algorithms applied by Hillis (1998) and Sims (1991, 1994) and used for generating i.e. artificial life, virtual creatures, optimization, game learning, machine learning, and sorting networks.

Finally, the paper involves the issues connected with explaining phenomena ranging from the micro to macro levels of organizational analysis, taking the links between micro- and macro-level into consideration, especially in terms of the units in the multi-level selection analysis.

Internal and External Selection – the Context, Levels and Units of Analysis

While the mechanisms of variation and retention are more prevalent and they rather are not misunderstood in a number of studies, the selection logic, being opposed to equilibrium notions and separating evolutionary theory from other theories in management, reflects more ambiguities and inconsistencies. Consequently, it requires deepened considerations and research.

In accordance with the Campbell and Aldrich’s considerations, the selection mechanism concerns the environment as the selector and evolutionary agent. It involves so-called external selection. Similarly, selection-based explanations for the development of industries made by Hannan & Freeman (1977, 1984), the supporters of population ecology of organizations, deal with the environmental agent of the selection logic. Moreover, Klepper (1997), Klepper & Simons (1997), Holbrook et al. (2000) empirically studied that the development of some industries and their considerations might be located in the perspective of external selection processes. In a similar vein, Levinthal (1992, 1997) stresses the selection process in terms of competitiveness and fitness landscape. Thus, his studies as well refer to external selection. Additionally, external selection mechanisms correspond to the concept of path dependence lock-in. In accordance with that issue, the selective force of environment depends on a historical context of industry evolution – both its early and later renewing stages.
In contrary, Burgelman’s work (1991, 1994) on the mechanisms of companies’ transformations in terms of intra-organizational ecology of making strategy contributed to the development of the concept of selection processes within the firm - so-called internal selection where managers are (not environment) the primary evolutionary agents. As for internal selection theory, the organization as a portfolio might internally diverse and managers anticipate the environment’s forces and attempt to adjust (Henderson & Stern, 2004). Enhanced internal variety leads to renew established organizations and mitigate threats posed by dramatic external change (Miner, 1990, 1991). In a similar way, Sakano & Lewin (1999) advance arguments that managerial intentionality is an important driving factor of co-evolution. Such intra-organizational selection processes assume a role for conscious managerial intervention in the evolutionary mechanism. It is consistent with contingency theory that asserts that management task is to achieve fitness with environment (i.e. Burns & Stalker, 1961). The role of managerial intentionality and intervention is also supported by industrial organization field and behavioural theory. Interestingly, external selection adherents posit that organizational (managerial) attempts to renew organizations might even suppress the organization chance for survival. It also encompasses the structural inertia concept in population ecology theory as external selection theorists support inertial organizations that reproduce their actions despite environmental change (Henderson & Stern, 2004, p. 42). The organization is perceived as not the portfolio, yet a monolithic whole.

Referring to Winter’ considerations presented in the work of Murman et al. (2003), the internal and external selection processes are complimentary each other even if evolutionary selection pressures are important drivers, they provide only a very low-dimensional feedback from current environment transactions and internal selection processes support it through elaborating that limited feedback into developing some behaviour and suppressing another. Evolutionary perspective is open to a significant role for more levels of organization than only one typical in the orthodox theory. Consequently, the selection processes occur at various levels and need to be probed deeper into details. Envisaging multi-level selection means in fact that some activities of particular units of analysis (i.e. individuals, teams, organizations, populations) can decrease their individual fitness, however, on the other hand, increase the fitness of the unit itself (Sober & Wilson, 1998) – the authors show a great instance illustrating that phenomenon, namely the envision flocks of chickens on an egg farm. Generalizing, multi-level selection attempts to establish what benefits or decreases the fitness of a unit within a larger one (Murmann et al., 2003).

The debates on the types and number of selection levels have led to distinguish mainly genetic, individual, group, organizational, industry, and even higher levels (Piórkowska, 2015; Strużyna et al., 2015). For instance, three levels of analysis, namely individual human beings, the organization (Wedgwood), and the industry (the pottery one), were taken into considerations by Langton (1984) who examined the process of selection simultaneously with the variation mechanism. On the other hand, Nelson & Winter (1982) have contended organizational routines as the micro-behaviour portrayal developing the character of system (macro)-level. Moreover, taking the routines in isolation into account, the group selection occurs. The more pervasive, the more systemic the routines, the stronger is the basis for group level
selection (Mummann et al., 2003, p. 12). Going beyond the industries, the next level of selection reveals meta-populations and ecosystems.

The next issue that requires being taken into account is what constitutes the unit of selection and ways (what co-participates in those processes) in which they spread, replicate and insinuate themselves into organizations or into epistemologically higher levels. The answer depends on the particular level of selection considered as well as on selection levels taxonomy approved. In terms of the genetic level, the genes constitute the selection unit. In turn, the individual level is accountable for habits and their antecedents in the form of mental models and cognitive abilities. In accordance with the group level, the selection unit might be either habits with antecedents or routines in isolation. Regarding only the organizational level of analysis, the units of selection are routines and competencies that appear, from the organizational level lens, in bundles (even sometimes - idiosyncratic ones) – not in isolation and express in deeds. In that case, the organization is a temporary repository of routines and competencies (like a vehicle) what means that proliferating those routines and competencies depends on the selective survival of organization. Nevertheless, the routines and competencies do not care about organizations. Such a thought is coherent with the Dawkin’s concept of selfish genes (Dawkins, 1976). The last level going beyond the organization deals with meta-routines (i.e. dynamic capabilities that refer to the higher level and constitute the aggregate of routines) as the selection unit. Moving sanguinely further insofar as it would turn desirable to endeavour, however, a number of considerations of scholars due to that are hostile, the next possibility is to assume controversially the organization as the unit of selection. It is salient, then, to consider how the organization itself might be an interesting unit of analysis for selection. It is also connected with the concept of selecting across organizations and selecting for organizations and consequently with the natural selection of marketplace and the artificial selection occurring inside the organization. Hence, the selection of the assemblies of organizational routines is different from the selection on the basis of individual traits and the proliferation of these individuals traits across organizations. It is also worth alluding the last but not least metaphor used for describing the selection units - the concept of ‘meme’ (Blackmore, 1999). In line with that conceptualization, the routines and competencies constitute the equivalent of memes, in which they make copies of themselves. It seems that they are connected with the organizational level of selection. The possible selection units described above refer to ‘clean’ levels of analysis without taking into consideration lower and higher stages of particular epistemological levels.

Obviously, the matter of selection levels and the units assigned to them amplifies the doubts which level is connected with internal or external selection. It might be envisaged that external selection begins where organizational level and routines occur, however, only in the case, in which the levels are treated separately.

Indeed, the selection mechanism might be considered at various levels simultaneously or separately. Nonetheless, taking the contextualization of ‘selection’ notion into account, the processes at every level of selection are dependent on one another. Moreover, the relationships amongst selection interactors and replicators are mutual, co-evolutionary and they are under co-evolutionary dynamics influence.
Co-evolution of Internal and External Selection – Preliminary Ascertainment

The coevolution phenomenon thrives also in organizational science (early work in: Weber, 1978; Chandler, 1962; Kieser, 1989) and the evolutionary approach, however, there are not concerted views about that process amongst scholars from different fields. Anyway, the co-evolution perspective is under common agreement that it is potentially able to integrate micro- and macro-level evolution as well as selection and adaptation illusive chasm (i.e. Lewin, Volberda, 1999; Baum & Korn, 1999; Baum & Singh, 1994; Levinthal, 1997).

In organizational science neocontingency theorists ensure that adaptation is congruent with both managerial active action and environmental forces through the process of mutual adaptation between the organization and environment what is consistent with mutation processes of new emerging forms in the evolutionary lens. Consequently, ‘the joint outcome of managerial adaptation and environmental selection instead of naïve selection or naïve adaptation’ (Lewin, Volberda, 1999, p. 523) should be considered. Envisioning that internal selection concept is confluent with managerial intentionality and intervention, co-evolution phenomenon might explain the interrelationships between external and internal selection mechanisms as well as between adaptation and selection, as the change is the joint outcome of intentionality and environment influence.

Co-evolution inferences ought to be ushered in the following co-evolution properties: multi-levelness/embeddedness, multi-directional causalities, nonlinearity, positive feedback, and path and history dependence (Lewin, Volberda, 1999). Co-evolution takes place at multi-levels (there are interactions between multiple levels of co-evolution and lower levels occur in the context of higher levels) and scholars (i.e. Mc Kelvey, 1997; Baum & Singh, 1994; Cohen & Stewart, 1994) distinguish micro-coevolution (co-evolution within the organizations in intra-organizational competitive context) and macro-coevolution (co-evolution amongst organizations in co-evolutionary competitive context). It converges towards emphasizing co-evolution of internal selection (co-evolution amongst selection units at genetic, individual, and lower group level) and external selection (co-evolution amongst selection units at higher group as well as lower and higher organizational levels). Hence, micro-evolutionary selection within organizations emerges in the context of macro-evolutionary selective pressure. Additionally, all selection units change in never-ending processes, which are not merely linear subsequent, yet diffusing selection ones, in order to sustain their current level of fitness.

With very few exceptions (i.e. Henderson & Stern, 2004), scholars have not examined internal and external selection as interwoven processes and from the perspective of co-evolution. The most important for considerations in this paper research result of Henderson & Stern (2004) is that internal and partial external selection co-evolves, as each affects the other’s future rate and the odds of organization failure.

On the basis of reflections presented and in conclusion with this section, it might be asserted that the following hallmarks constitute the determinants of internal and external selection co-evolution: character of variation mechanism, fitness degree, ways of interacting and replicating selection units, mutual adaptation, embeddedness and path dependence as well as nonlinearity and non-subsequence of selection processes. Moreover, multi-level selection and adaptation and their parallelism and
hierarchy help resolve the tension of the exploration and exploitation trade-off (Murmann et al., 2003, p. 11) since it is contended that established organizations are the likely victims of environmental selection (Henderson, Stern, 2004, p. 43). The reason for that evolutionary bias is that established organizations sometimes explore, yet as they grow larger such exploration is interwoven with exploitation consisting of incremental refinement to the status quo (Henderson, Stern, 2004, cf. Cyert & March, 1963; March, 1991, Levinthal & March, 1993).

Concluding all considerations and issues addressed with a careful scrutiny, it is proposed to assume that the most reconciled co-evolution of internal and external selection exists while there are strong both internal and external forces – then, they reflect pooled interdependencies between the organization and environment. When external selection forces are stronger than internal selection ones, the strong environmental selection of the most fitted (counterintuitively - the most structurally inertial as rapid environmental change is antithetical to survival in that case) organizations occurs and the most misfit selection units are ignored by the environment. In the case of stronger internal forces than external ones, the organization has greater chance to develop itself as a diversified portfolio and to embody to the environment – simultaneously, the organization is more likely to influence and create the environment. While weak both internal and external selection forces reveal, it might be regarded that the environment is not focused solely on the particular organization regarding its minor fitness as well as the organization is weakly oriented towards adapting to environment – thus, it becomes stuck in the middle.

**Conclusion**

The paper content proceeds from evolutionary approach premises, especially from the selection logic and constitutes the prolegomena on co-evolution of internal and external selection. The exploratory literature studies have examined and unveiled the relationship and interdependence between internal and external selection mechanisms. Despite the widespread use of the evolution and co-evolution concepts, the current research on co-evolution between evolutionary mechanisms as, inter alia, selection has not been greatly consistent with regard to even defining the construct.

Therefore, there is a challenge to scrutinize and operationalize how the units of selection are similar, yet different in selectively significant ways. Undoubtedly, there is the need for high-quality research on foundation issues. On one hand, the deepened qualitative empirical studies at a micro level are proposed to be conducted. On the other hand, more advanced than so far quantitative modelling research of evolving systems at a macro level ought to be undertaken (compare: Murmann et al., 2003, p. 8) so as to establish the co-evolution models and inferences. It seems that it is all the grist for the mill.
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A Novel Business Model Based on Real Time Bidding and Online Video Interaction Technology

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Abstract
The aim of this paper is to introduce a novel business model based on real-time bidding (RTB) and an online video interaction technology, and also to demonstrate how the operation of this model could possibly boost the power of advertising. In this context, power is defined to be advertisers’ ability to precisely reach their target customers with lowest cost. This business model makes the scenario become possible: when watching a video, in whatever object a viewer feels interested, he or she can simply click the object, and advertisements that tightly relevant to this object will be instantly displayed. On the other hand, if the viewer doesn’t click any object, there will be absolutely no advertisements during the entire watching process. This model gets rid of annoying pre-rolls, post-rolls and in-video ads, and brings the most frictionless watching experience to viewers. At the same time, being targeting and cost efficiency, RTB saves advertisers time and money to reach target customers. To prove the technical feasibility, a novel video interaction technology was built around a novel object recognition/tracking technique. Innovative algorithm of scene-splitting was implemented to ensure recognition and tracking accuracy. Through the video-interaction, the Click-Based Viewer Preference Database is established and served as an indispensable price reference during RTB. As a result, advertising becomes more powerful in that advertisers are capable of reaching their target customers more precisely with less time and money spent, and viewers can obtain more information from what they see.

Keywords: Online Video Advertising, Real-Time Bidding (RTB), Video Object Recognition and Tracking, Customer Behavioral Database, Interactive Advertising
Introduction

With the booming use of the internet, people are getting used to doing everything online. Watching videos is undoubtedly one of them. Where there are huge amount of people, there are advertisements. Advertisement space has been the most monetizable assets in the industry of online video, whose revenues are larger than subscription or transactions. According to Russo, IHS Technology (2015), online video generated a global advertising revenue of $11.2 billion in 2014, which has been doubled since 2011. It is forecasted that by 2017, online video advertising revenues will reach $19 billion, which surpasses TV advertising in some markets (Russo, 2015). Take the market in US and China as examples. eMarketer forecasted that the digital advertising spend in US will increase to $5.9 billion in 2014, which achieved a 56% yearly growth (as cited in Blattberg, 2014). Also, iResearch (2014) pointed out that Chinese online video market generated a total revenue of 12.8 billion Yuan in 2013, a growth of 41.9% from 2012.

Currently three formats of online video ads are prevalent in the market, which are pre-roll ads, post-roll ads and in-video ads (VanBoskirk, Li, Katz & Lee, 2007). They are classified by the time they are displayed to audience (before video, after video or in video). Though huge market size, we’d better carefully consider the disturbance that online video ads bring to viewers’ watching experience. VanBoskirk et al. (2007) pointed out that 82% audience found the formats of online video advertising annoying. The underlying reason for audience’s negative feedback is that ads displayed to audience usually have nothing to do with the video content. In that case, ads become nothing but a kind of interference. Being aware of this embarrassing situation, YouTube, who was bought by Google in 2006, is considering to offer an ad-free, subscription version so that audience can have choice to avoid watching ads (Hopkins, 2006; Etherington, 2014).

Research on Object Tracking

In order to provide ads that are tightly associated with the video content, researchers came up a solution called object tracking. Hare, Saffari and Torr (2011) put forward an adaptive object tracking algorithm whose name is STRUCK. This algorithm relies on a structured output support vector machine with kernels (Hare et al., 2011). Kalal, Mikolajczyk and Matas (2012) proposed Tracking-Learning-Detection (TLD) as a novel tracking algorithm. TLD decomposes the tracking process into tracking, learning, and detection, which enables tracking to be adaptive based on previous frames (Kalal et al., 2012). Henriques, Caseiro, Martins and Batista (2015) proposed a high-speed tracking algorithm, which exploited the properties of circulant matrices and increase the computation efficiency by leveraging Discrete Fourier Transform. In addition, Zhong, Lu and Yang (2012), Kwon and Lee (2011), and Dinh and Medioni (2011) also came up with innovative algorithms for object tracking in videos.

The reason why object tracking is viewed as a promising solution to irrelevant video ads and poor watching experience is that by knowing the timestamp and position information of any object within a video, once a viewer clicks this object, video content providers immediately know the exact object the viewer is clicking through matching with pre-stored tracking results. Therefore, advertisers know completely...
what the viewer likes, and ads delivered to each viewer could be more personalized, targeting and customer-oriented.

Research has also been conducted on the evaluation of object tracking algorithms. Wu, Lim and Yang (2013) suggested some benchmarks to gauge the performance of different object tracking algorithms in terms of their accuracy and precision. With the help of those benchmarks, the Computer Vision Lab at Hanyang University (“Visual Tracking Benchmark”, n.d.) published the evaluation results on 29 tracking algorithms. The results indicated that the average overlap between the tracking result and the ground-truth is around 50% to 60%, and that the average failure rate is approximately 3 to 8 per 100 frames (Hu, Wang, Zeng, Lai & Wang, 2015).

**Real-Time Bidding (RTB)**

Besides the irrelevant and boring online video ads, the time and money efficiency of advertising is always a major concern for advertisers. Real-Time Bidding (RTB) is brought to the industry promptly. In the online video advertising industry, RTB becomes increasingly essential since its debut in 2009 (“The Arrival of Real-Time Bidding and What it Means for Media Buyers”, 2011). RTB is a technology that utilizes computer algorithms to intelligently bid for certain advertisement space based on audience profile (Yuan, Wang & Zhao, 2013).

Figure 1 shows the existing working mechanism of RTB in the industry of online video advertising. Firstly, video producers, either video production companies or individuals, produce videos and upload to various video platforms, such as YouTube from US, Youku-Tudou from China, niconico from Japan, etc. Then, when viewers watch videos on those platforms, RTB is triggered. Video platforms basically tell the Supply-Side Platforms (SSP) the need for advertisements. Next, Ad Exchange, such as Doubleclick from Google, Tanx from Alibaba and Facebook Exchange from Facebook, announces detailed bidding information to the Demand-Side Platforms (DSP). With the help of DSP, advertisers will decide the bidding price for one advertisement to be delivered to one particular viewer (Zhang, Yuan & Wang, 2014). Making this tough decision involves requesting data from some third-party Data-Management Platforms (DMP). DMP provides such information like the geographical and behavioral analysis of a particular viewer to DSP so that DSP could submit a reasonable bidding price. Finally, the advertiser who offers the highest bidding price wins the chance to deliver ads to the particular viewer (Zhang, Feng, Chang, Tan & Qin, 2015).
Research effort has been devoted to improving the working efficiency of RTB. For instance, Chen, Berkhin, Anderson and Devanur (2011) maximized publishers’ revenue and achieved a good match between advertisers’ campaigns and ad impressions with a novel algorithm.

RTB provides a bidding system for advertisers to purchase display inventory by the individual impression. Advertisers will only offer high price for those audience who they believe are most likely to be their target customers. Being targeting and cost efficiency, RTB is gradually becoming revolutionary in the online video advertising. (“What is RTB”, n.d.).

**Proposed Business Model Based on RTB and Online Video Interaction Technology**

To create a frictionless and smooth watching experience for video viewers, we took the advantage of both object tracking algorithms and the RTB technology, and proposed a novel business model based on RTB and online video interaction technology.

Figure 2 shows the proposed business model based on RTB and online video interaction technology. To prove the technical feasibility of the proposed business model, a novel video interaction technology is implemented to pre-process videos. This technology recognizes and tracks objects with high commercial value in the video, and makes them clickable throughout the video. Once viewers click objects in videos, RTB is immediately triggered, and eventually ads which are closely associated with viewers’ interests will be displayed. What’s worth mentioning is that ads are displayed only when viewers click objects in videos, and viewers won’t be forced to watch any boring or irrelevant ads. If viewers click nothing in videos, no ads will show up throughout the entire watching experience.
Figure 2: Proposed business model based on RTB and online video interaction technology

Online Video Interaction Technology

Figure 3: Proposed online video interaction technology

Figure 3 shows the flowchart of the proposed online video interaction technology. When an unprocessed video clip is input, scene-splitting algorithm starts to take action to split the original video into different scenes. Here, the ‘scene’ is defined to be a collection of consecutive frames which stay almost unchanged within most parts of the frames. Our need for the scene splitting stems from the fact that the tracking algorithm fails whenever there is an abrupt change in frames in the video.

The correlation coefficient (1) is used to decide whether there is an abrupt change between two frames,

$$ r = \frac{\sum_m \sum_n (A_{mn} - \overline{A})(B_{mn} - \overline{B})}{\sqrt{\left(\sum_m \sum_n (A_{mn} - \overline{A})^2\right)\left(\sum_m \sum_n (B_{mn} - \overline{B})^2\right)}} \quad (1) $$
where $A$ and $B$ denote the image matrix of consecutive frames in a video. $\bar{A}$ and $\bar{B}$ are the mean of $A$ and $B$ respectively, and $r$ denotes the correlation coefficient. To detect a scene changing using (1), we compare three values $r_1, r_2$ and $r_3$. We decide that a scene change happens only when $r_1 - r_2 > \varepsilon$ and $r_2 - r_3 > \varepsilon$, where $\varepsilon$ is a predetermined threshold. Different video clips have different optimal $\varepsilon$ value. In our 21 tests on car videos, 0.2 is an appropriate value (Zhang, Tan, Qin, Li & Tang, 2014).

Object recognition comes as the next procedure to find out any objects with high value of advertising. The recognition performance relies highly on the training model for certain objects. The object recognition can be finished either automatically or manually. Manual correction is available if automatic recognition fails.

After object recognition is over, the recognition results serve as inputs for automatic object tracking. We utilized the existing algorithms of Consensus-based Matching (CMT) and Tracking-Learning-Detection (TLD) (Nebehay & Pflugfelder, 2014; Kalal et al., 2012). There is a trade-off between overall runtime and accuracy. CMT is more accurate, but TLD can run faster (Wang, Liu, Liang, Guo & He, 2015). So it depends on the type of input video and the balance between runtime and accuracy which tracking algorithm users choose to use.

Finally, manual correction, ads interface and customer education are implemented so that the output video could be directly published to video viewers.

**Click-Based Viewer Preference Database (CBVPD)**

Another highlighting feature in the proposed model is the CBVPD. Currently, advertisers and DMPs have to speculate viewers’ potential purchase intentions by analyzing such indirect information like browsing history, purchase record, etc. But with the help of the proposed technology, once viewers click any object in the video, a json file with the following format will be transferred to the CBVPD:

$$(n, t, x, y),$$

where $n$ is the object category (vehicle, cloth, jewelry, celebrity, etc.), $t$ is the timestamp at which viewers click this object, and $x$ and $y$ stands for the location of the center of this object. With those information, viewers directly tell advertisers what they truly feel interested in and there is no need for advertisers to guess at all. CBVPD can significantly boost the efficiency of advertising because it is the most straightforward format of customer behavioral data, helping advertisers to reach their target customers more precisely with lowest cost.

**Conclusion**

To address the underlying issues of ineffective ads format and unsatisfactory video-watching experience in the online video advertising industry, a novel business model is proposed. The model highlights the use of real-time bidding (RTB), online video interaction technology and the Click-Based Viewer Preference Database (CBVPD).

A novel video interaction technology was developed to technically support the proposed business model, which covers a manual correction mechanism and algorithms including scene-splitting, object recognition and object tracking.
The proposed business model and the corresponding video interaction technology create a significant customer engagement, providing a deeper and more specific customer insight. With the help of RTB, advertisers can use a highly specific data to personalize the video-watching experience and expedite the purchase decision associated with the target customer.

Despite the frictionless watching experience and the cost efficiency that this proposed business model could bring to the industry, applying it to a real business world is still challenging. This is because so far customers are not used to clicking objects when watching videos. To solve this problem and make full use of the proposed model, the industry needs to educate customers with a systematic process and teach them the interactive format of online video advertising. In the near future, customers will be instantly connected to what they want to watch simply by a mouse click, a finger touch or even an eye blink. Be prepared to usher in and embrace a new era of online advertising.

As for future research work, the CBVPD should arouse researchers’ interest. Having deep insight into the click pattern from different groups of viewers can certainly contribute to comprehensive understanding of customer behavioral and advertising efficiency. Research in this field will not only improve power in advertising, but also help to better understand human beings.
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Abstract
This paper is an assessment of the effects of the Re-branding Campaign launched in 2009 by the Federal Government of Nigeria to “market” Nigeria abroad. Two major objectives were investigated in the study. These include; (i) to assess the effectiveness of the approach adopted by the government of Nigeria for the re-branding project based on the conventional re-branding-a-country procedure for enhanced national development and transformation, (ii) to evaluate the perception of the international community about the image of Nigeria since 2009 when the re-branding project was launched. Survey research design was adopted for the study. The study was carried out among the international community. Altogether, 180 foreigners were selected for the study. Questionnaire was used for data collection. Chronbach’s Alpha method was used for assessing the internal consistency of the questionnaire. Content analysis and one-way ANOVA were used to test the hypotheses formulated for the study. Findings revealed that the approach adopted by government in its re-branding efforts did not match the conventional re-branding-a-country procedure and that there was no significant difference in the way the international community perceived Nigeria and its people before and after the campaign. The study concluded that, re-branding Nigeria campaign did not achieve the aim for which it was set for as a result of the approach adopted in its execution. It was therefore recommended that government should strive to address those burning issues otherwise, the re-branding project would remain an illusion and a sheer waste of resources.

Keywords: Nigeria, re-branding, image, perception, abroad
1. Introduction

Nigeria is a country located in West Africa sub-region. The name 'Nigeria', the flag, the Nationals/Citizens of the country together with their International Passport, the currency 'Naira' spent in the country and such other properties which can be traced or attributed to Nigeria, are all the components constituting the brand called Nigeria. In marketing, the term 'branding' which is the act of creating strong identity has traditionally been associated with products and services, rather than with countries, places and cities. Companies and corporations, even the most competing ones use branding mainly as a distinguishing and strategic competitive tool in the market place and also in the fierce market drive for consumers (Pitta and Kotsanic, 2005). Currently, known products, services and countries have continuously made efforts at branding and rebranding themselves in a bid to differentiate and make acceptable/unique impression. In a clearer and simple term therefore, a brand is what signals to the customer the competitive attributes of a product/services and/or the strength of a country. particularly its source – i.e. where it is produced from, the company that produced it, the symbol, logo and the colour with which it can be identified, all geared to the protection of the customers and the producers from competitors who would or may attempt to imitate the product (Cretu and Brodie, 2007). In the same way, most governments and countries across the world today are increasingly employing branding and several other marketing techniques to sell their regions and countries to the rest of the world, all in the bid to increase their international profile, attract foreign direct investments and make the places ideal destinations for tourism and trade (Bamiduro and Aremu, 2012; Uchem, 2009). Countries such as United States of America, United Kingdom, Spain, South Africa, China, and many others have succeeded in branding their nations, presenting their nations as unique place-brands which keep attracting investors, tourists, and nationals of other countries to their nations as the destinations they must visit (McKay, 2009; Frank, 2010).

In view of these, the need to assess the effects of Nigerian Government’s rebranding efforts on the image of Nigeria abroad ever since 2009 that it was launched becomes imperative for this study.

1.1 Statement of the Problem

The image of Nigeria – a noble country that is regarded as the Giant of Africa has not been the best and seemingly battered before the world (Alyebo, 2012). It is believed that corruption occurs at all levels and everywhere in the country. The alleged corrupt practices are of different forms such as bribery, diversion and misappropriation of public funds, distortion of rules etc. Transparency international in December, 2014 ranked Nigeria out of 174 countries surveyed as no 136th most corrupt country in the world and 3rd in West Africa. The poor image has not only affected the economy of the country but has also affected the way the international communities perceive every Nigerian. Several rebranding efforts have been executed by past government administrations particularly to improve on the image of Nigeria yet, it remains poor (Thomas:2010, Egwu, 2013 Etekpe, 2012). Some have equally criticized the latest rebranding project and described it as a step in the wrong direction (Matiza and Oni 2013).

In the same vein, crises have equally dented the image of Nigeria. Foreigners no longer feel comfortable visiting Nigeria whether for tourism or for business purpose.
Cases of religious crisis between a sect called Boko Haram on one side and the rest on the other have rocked cities, destroyed churches, mosques and claimed hundreds of thousands of lives and properties since the past five years. There have been cases of kidnappings, hostage takings of Nationals and Foreigners etc. which have impacted negatively on the perception of Nigeria by foreigners.

Most Made in Nigeria goods are believed to be fake The Nigerian government has in the past been involved in one rebranding Nigeria project or the other to improve the image of Nigeria. The most recent one was the rebranding campaign project of the Federal Government of Nigeria initiated by the then Minister of Information in 2009. Several Nigerian critics shunned the approach adopted. It is the desire to assess the effects of this rebranding Nigeria project on the perception by foreigners since the recent campaign was executed in 2009 that prompted this study.

1.2 Objectives of the study

The objectives of this study include:

i. To assess the extent to which the strategies adopted by Federal Government of Nigeria in 2009 for the rebranding Nigeria project conformed to the conventional rebranding-a-country procedure.

ii. To evaluate the perception of the international community on the image of Nigeria and its people since 2009 that the rebranding project was launched.

1.3 Research hypotheses

Two research hypotheses were formulated for this study. They include:

i. H₁: The rebranding strategies adopted by Federal Government of Nigeria in 2009 does not significantly match the conventional rebranding-a-country procedure.

ii. H₂: There is no significant difference in the way the international community perceives Nigeria and its people before and after 2009 that the rebranding campaign was launched.

2. Review of related literature.

Branding is a marketing management process of giving a product, service, organization, nation or personality a unique identity and image such that it is easily and positively identifiable and distinct from the competition (Rodrigue and Biswas, 2004). It could be in the form of – a name, term, sign, symbol or design, or even a combination of these.

Rebranding is a marketing strategy through which a new name, term, symbol, design, or combination thereof is created for an established brand with the intention of developing a new, differentiated identity or notion in the minds of consumers, investors, and competitors (Bill and Dale, 2008). It can also be described as the repositioning or repairing an existing brand (Collins and Porras, 1997). Marketers should sell perceptions to consumers not products (Ejionueme and Onukogu, 2012). Simply put then, rebranding means – to change consumer’s perception about a
product or brand to attract positive affection or affinity to it for the benefit of all stakeholders, particularly the promoters of the brand (Kaikati, 2003).

2.1 Past Rebranding Strategies by the Federal Government of Nigeria and How They Failed

Rebranding Nigeria has been a product of many past government administrations in Nigeria. Dated back to the period of Civil War which lasted for 30 months [July 1967 – Jan. 1970], Gen. Yakubu Gowon, the then military Head of State in Nigeria, initiated a sort of rebranding Nigeria programme in the form of what seemed like a masterstroke to heal the scaring wounds of the war. In a bid to weld the country back from the brink, Gowon declared that ’there was no victor or vanquished’ at the end of the war. He introduced the three Rs programme namely: Reconciliation, Rehabilitation and Reconstruction (Etekpe, 2012). To implement this campaign, Gowon pledged to remain in power till 1976 before handing over to a civilian regime after a democratically conducted election. His regime saw the beginning of the Oil Boom era in Nigeria, thus he was able to spend money to prosecute the three Rs agenda. However, the moment Gowon said 1976 was no longer realistic for a democratic handing over, the brand equity of his regime and the country began to ebb (Egwu, 2013; Thomas, 2010). In 1983, General Muhammadu Buhari (rtd) launched War Against Indiscipline (WAI). WAI was also a rebranding effort aimed at giving Nigerians a new lease of life. WAI espoused discipline in both public and private lives of the people and they were fast adapting to it before the regime was overthrown (Emma et al, 2012).

In 1987 General Ibrahim Babangida embarked upon a rebranding project called MAMSER – Mass Movement for Self Reliance Social Justice and Economic Recovery. It was introduced as part of the transition programme of the regime with the aim of giving Nigeria a new beginning. MAMSER had on board eminent Nigerians who have excelled in their various areas of calling. Till date MAMSER remains the longest rebranding effort ever embarked upon by any Nigerian government. Ironically, despite its laudable objectives MAMSER ended up a colossal failure as a result of the annulment of the fairest June 12, 1993 Presidential election which almost tore Nigeria apart. was accounted for as the reason for the failure of MAMSER (Adamolekun, 1989,Nwankwo et al., 2012).

In an effort to market Nigeria abroad, President Olusegun Obasanjo during his first tenure in 1999 toured different countries of the world marketing Nigeria abroad. During his second term [between 2003 – 2007], President Obasanjo also launched the Heart of Africa project, a continuation of the regime’s external rebranding campaign. The Heart of Africa project too achieved little because it is difficult to rebrand externally without doing same on the internal realm. (Nwankwo et al., 2012).

2.2 Rebranding Campaign Launched by the Federal Government of Nigeria in 2009

During the administration of Late Alhaji Umaru Musa Yar’Adua, a rebranding Nigeria campaign was launched and championed by Late Prof. Dora Akunyili, the then Hon. Minister of Information and Communications with the bid to launder the seemingly battered image of the country among the comity of nations. The campaign was
criticized because most people felt the timing was wrong and given the current challenges of the global financial meltdown, they felt it was inauspicious for the government to embark on another spending binge in the guise of rebranding (a sign of deep seated distrust of government intentions). But to those who applauded the campaign felt that Nigeria needs urgent repackaging in order to attract investors into the country (Abdullahi et al., 2012).

2.3 Federal Government Approach to Rebranding Nigeria

Late Prof. Dora Akunyili who led the rebranding campaign in 2009 relied keenly on her experience as the former Director General of National Agency for Foods and Drugs Administration and Control [NAFDAC]. She believed Nigerians would be willing to rally round a good cause that speaks to their needs, and ready to take over a rebranding Nigeria campaign if they believe in it (Airenevboise, 2009). To begin with, the government via Professor Dora invited prototype of logos and slogans of choice from Nigerians both at home and in the Diaspora. Nigeria government engaged a 22-man committee selected from the various sectors of the society to assess the almost 3,000 entries of slogans and logos, out of which the slogan – Nigeria, Good People, Great Nation was chosen. The campaign was then flagged off. The government believed the slogan will help to inspire patriotism in Nigerians as they collectively tackle the challenges ahead (Uchem, 2009).

The rebranding Nigeria message was targeted at the world. First, to Nigerian secondary schools and universities to inculcate the culture of civility and a renewed sense of patriotism in students. To sustain this, and also to propagate the message, the government through Dora established rebranding clubs in the universities and secondary schools. Secondly, the government sought partnership with National Youth Service Corp (NYSC) which also promised to avail the services of over 300,000 graduates in creating awareness of the rebranding campaign. Thirdly, the Government believed so much in working with Nigeria Foreign Affairs Ministry which would help in carrying the Re-branding message to Nigeria’s embassies / foreign missions. The Government also sought to partner with the 105 Nigerian missions abroad, believing that they are the windows through which Nigeria is seen outside the country. Furthermore, engaging over 7 million Nigerians in the Diaspora was seen as part of the rebranding roadmap believing that each of them is an ambassador (Alyebo, 2012).

The foregoing revealed the approach or strategies adopted by the Federal Government for rebranding Nigeria. Experts’ critics frowned at the steps taken for the rebranding campaign. On this note therefore, it is pertinent to assess the theoretical underpinnings for rebranding a nation/country so as to justify the tenability of government approach to rebranding.

2.4 Theoretical Framework on How a Country/Nation can be Branded or Rebranded

To rebrand a country, many academics and brand ambassadors have frowned at the method adopted by Nigerian government in her rebranding campaign. (Bamiduro and Aremu, 2012; Alyebo, 2012). While some agitated that the same strategies and tactics used for re-branding tangible products like Pepsi, Coca-cola and Apple Corporation...
cannot be used for a country (Airenevboise, 2009), others emphasized that, there must be a total behavioural change if a country must be rebranded at all (O’Tudor, 2009).

There have been a number of theoretical approaches as to how a country or nation can be branded/rebranded. Although, the term “nation branding” was first developed by Anholt in 1996 who undoubtedly is the most prolific author on the subject (Anholt, 1998) and has played a key role in establishing nation branding through consulting practice, speaking engagements, and efforts to institutionalize it as an academic field with scientific legitimacy but another “founding father” of the term – Wally Olins who is a British Branding expert subscribes holistically to how a country can be branded or even rebranded. Olins recommended seven (7) steps for rebranding a country. These are:

i. Set up a working party with representatives of government, industry, the arts, education, and the media to start the programme. Practically, Olins understands here that, re-branding a country like Nigeria whose image is battered greatly hinges on changing the psyche of the nation and her people, and it requires a multi-sectorial approach to tackle. In this case, adding to the sectors mentioned in the working party, socio-psychologists indeed have an important role to play as well as economists, political scientists, linguists and language Educationists among others.

ii. Find out how the nation is perceived both by its own people and by the nations abroad through qualitative and quantitative research;

iii. Develop a process of consultation with opinion leaders to look at national strengths and weaknesses, and compare them with the results of the internal and external studies;

iv. Create the central idea on which the strategy is based with professional advisors. Uduji (2012,373-374) admonishes that this step needs to be a powerful, simple idea that captures the unique qualities of the nation which can be used as a base upon which the entire branding/rebranding programme can be developed. This will be regarded as the Country’s Unique Selling Proposition (U.S.P).

v. Develop ways of articulating the central idea visually including logos;

vi. Look at how the messages required for tourism, inward investment and export can be coordinated and modulated so that they are appropriate for each audience; and

vii. Create a liaison system through the working party to launch and sustain the programme in government activities and to encourage supportive action from appropriate organizations in commerce, industry, the arts, media and so on (Olins, 1999).

In spite of these steps recommended by Olins, there are several other theoretical approaches to branding/rebranding a nation. Kaneva (2011) did an extensive review of 186 journal papers published between 1997 and 2009 on the existing terrain of scholarly works on nation branding, and recommended three common approaches on how to brand and/or rebrand a nation. These include; the Technical-economic approach; the political approach; and the cultural approach. While each of these...
approaches is regarded as the 'functionalist' approach to nation rebranding targeted at branding/rebranding a specific aspect of the nation, this current study however would adopt the Olins approach particularly for critiquing the viability of the Rebranding campaign project launched by the federal Government of Nigeria in 2009. Olin’s recommendation was adopted in this present study as a result of its advantage in taking a wholistic or multi-dimensional approach to rebranding a country.

2.5 Empirical Reviews

Quite a number of studies have been done on the effect of rebranding Nigeria projects. Bamiduro and Aremu (2012) for instance, carried out a study titled Assessment of the Need for and Effectiveness of Rebranding in Nigeria using survey research design. These authors based their work on the notion of Nigeria’s disfigured image in the global village which has become an insignia of dishonest, dishonor and disrespect for a mighty nation of over 150 million people. Considering the fact that, majority of Nigerians are industrious, God-fearing and law abiding, and that a tiny minority is destroying the image of the country while government's ineptitude adds salt to the injury, Bamiduro and Aremu (2012) questioned the need for rebranding Nigeria as a panacea for correcting the effects of the global economic meltdown. Findings of the study revealed that the rebranding launched by government in 2009 has not been about its relevance but more of its suitability to the country at the expense of several other compelling issues. Similarly, Adebola et al., (2012) did a study titled ‘Rebranding Nigeria: The Role of Advertising and Public Relations at Correcting Nigeria Image’ using ethnographic methodology with the meta-analysis of existing literatures and newspapers as the data collection approach. The study was equally based on rebranding Nigeria project launched in 2009 as well as that of the Heart of Africa project launched in 1999 during Obasanjo’s democratic regime. Findings of these authors revealed that the campaign project to re-brand the country has been dashed due to the neglect of the political, social, and economic stability cum non-involvement of public relations and advertising experts in the rebranding project but it quickly observed that when properly applied, effective public relations and advertising strategies cum conducive political, social, economic environment, the re-branding exercise will be fruitful. Another similar study to the rebranding Nigeria project is Alyebo (2012) which was titled The Re-branding Nigeria Project: The Sociolinguistic Imperatives of Nigerian Indigenous Languages.

The study was premised on the Nigerian indigenous languages as not only essential and strategic instruments in the re-branding campaign of Nigeria, but also as one of the indispensable variables. Alyebo (2012) opines that re-branding is a programme aimed at value re-orientation and attitudinal change among others. He adds that, right from inception, re-branding project is conceived as a home grown attitudinal change and value re-orientation programme as against similar projects in the past such as “Heart of Africa”, which was accused of being alien.

Uchem (2009) is another existing study on rebranding Nigeria project which was titled Re-branding Nigerian Projects in a Period of Global Economic Recession: Challenges and Prospects using ethnographic methodology with meta-analysis of existing literatures similar to what Adebola et al. (2012) did. The study was premised on the notion that the re-branding Nigerian campaign by Nigerian government during the administration of Alhaji Musa Yar' adua took a huge sum of money while the
government cannot boldly provide at least, a stable power supply, good governance, employment, or eradicate poverty. By critically analyzing the proposed staged rebranding programme against its challenges and prospects, Uchem (2009) suggested that the provision of good governance and other critical needs of the over 150 million Nigerians should better be the re-branding project without the government spending its resources.

2.6 Gaps in the Reviewed Literature

From the foregoing reviewed extant studies on the subject, it can be deduced that none of the studies except that of Bamiduro and Aremu’s (2012) was actually done to assess the effect of the rebranding Nigeria effort particularly the one that was launched in 2009. Although, Bamiduro and Aremu’s (2012) study did not sample the right respondents needed for the study. Their study titled Assessment of the Need for and Effectiveness of Rebranding in Nigeria used a sample of 100 respondents from Ilorin, Kwara State of Nigeria instead of foreign audiences which renders the study inaccurate. While this notion constitutes one of the essential gaps necessitating the need for this study, another important identified research gap from the extant studies is the methodology adopted by majority of the researchers. None of the studies could empirically appraise the strategies for rebranding Nigeria effort of government alongside the theoretical/conventional procedure for rebranding a country. The present study also fills the gap of other extant studies in this area by utilizing foreign respondents who naturally are in a better position to provide data on perceptual map of Nigeria’s image.

3. Methodology

This study examined the effects of Nigerian Government’s rebranding strategies of 2009 on the image of Nigeria abroad. Survey research design was adopted. Qualitative and quantitative approaches were used. Our respondents were members of the international communities intercepted at the Murtala Mohammad International airport, Lagos and others working in selected embassies, oil companies and construction sites in Lagos Nigeria. A sample of 180 was selected for the study. Convenience Sampling Technique was used for choosing the respondents. A structured questionnaire was used for data collection. The validity of the questionnaire was done using both face and content validity methods while internal consistency was adopted for the reliability test of the questionnaire items using Cronbach’s Alpha method. The reliability of the test instrument showed that the responses are reliable at 0.84 standard alpha. Two methods were adopted for the test of the hypotheses formulated for the study. Content analysis was used to test the qualitative data for hypothesis 1 while One-way ANOVA and post-hoc tests were used to test hypothesis 2.

4. Analyses and Discussions

Out of the 180 copies of questionnaire administered, 12 copies were not returned while 168 were retrieved. These returned copies indicated a success response rate of 93.3% from the survey. This can be said to be significant enough for drawing valid conclusions on the perception of the international community about the image of
Nigeria ever since the rebranding project of Nigerian Government was launched in 2009.

The two sets of data collected for this study were used to test the hypotheses formulated. The results are presented below.

4.1 Test of Hypothesis One

\( H_01 \): The strategies adopted by Federal Government of Nigeria did not conform to the conventional rebranding-a-country procedure.

The assessment of the conventionality of the rebranding Nigeria project was done by comparing the steps/strategies the Federal Government of Nigeria adopted in rebranding Nigeria in 2009 with Olin’s (1999) recommended steps/procedure for rebranding a nation (Content analysis). Olin’s recommendations was chosen because of its unique advantage of utilizing a multi-dimensional approach to rebranding a country.

**Step 1 of Olin’s Approach**

First step of Olin’s (1999) theoretical approach to rebranding a nation; advises *that the country should set up a working party with representatives of government, industry, the arts, education, and the media to start the rebranding programme*. In the case of Nigeria, there was no working committee from all the stakeholders as recommended by Olins. The Information Minister who initiated the campaign in 2009 relied more on her experience as the former Director General of National Agency for Foods and Drugs Administration and Control [NAFDAC] and therefore personalized the rebranding Nigeria project. The government used only the media ignoring other working parties.

**Step 2 and 3 of Olin’s Approach**

As for the second and third steps of Olin’s (1999) approach which says “*Find out how the nation is perceived both by its own people and by the nations abroad through qualitative and quantitative research;*…*Develop a process of consultation with opinion leaders to look at national strengths and weaknesses and then compare them with the results of the internal and external studies*”. Nigerian Government approach did not match both steps. In a bid to develop a brand proposition for the country, the Federal Government of Nigeria rather sought the views of 3,000 Nigerians out of a population of about 170 million with over 200 languages. In other words, the views of insignificant number of audience from Nigeria were sought in the choice of brand proposition and not necessarily about the image of Nigerians. There was no formal research on Nigerians’ perception by foreigners.

**Step 4 of Olin’s Approach**

Olin’s (1999) fourth step advises *that the country should create the central idea on which the rebranding strategy is based with professional advisors*. Nigerian government approach failed to consider this step. Rather the then Minister of Information, believed Nigerians would be willing to rally round a good cause that speaks to their needs, and ready to take over a rebranding Nigeria campaign if they
believe in it (Uchem, 2009). The Federal Government felt that Nigerians would understand the central idea about rebranding and change their behavior. They also relied on advertising campaign/persuasion method to change the attitude of Nigerians whereas there were no desired reactions by Nigerians. Nigerians could not understand the essence of the country’s rebranding project and could not live according to the purport of the rebranding message.

Step 5 of Olin’s Approach

The fifth step of the Olin’s theoretical approach which advises that the country should develop ways of articulating the central idea visually including logos. It was only at this step that the rebranding strategy of the Federal Government of Nigeria conformed to Olin’s recommendations. Nigerian government formulated a rebranding message slogan called “Nigeria, Good People, Great Nation” in order to market Nigeria.

Step 6 of Olin’s Approach

As for the sixth step which advises that the country should look at how the rebranding messages required for tourism, inward investment and export can be coordinated and modulated so that they are appropriate for each audience. Nigerian government did not consider the significance of the sub-brands of Nigeria such as – the potential of Nigerians in Football/Soccer around the world; the potential of Nigerians in Athletics; the potential of Nigeria in Crude Oil supplies; and many more potentials which could help to promote the mother brand – Nigeria in the sight and mind of the international audiences.

Based on these findings, it could be deduced that the Federal Government of Nigeria’s rebranding strategies did not conform to the conventional approach to rebranding a nation thus, the alternate hypothesis \([H_1]\) was rejected while the null hypothesis was accepted.

4.2 Test of Hypothesis Two

\(H_{02}: \) There is no significant difference in the way the international community perceives Nigeria and its people after the campaign was executed in 2009.

To test this hypothesis, the data on how the international community perceives Nigeria were gathered using 39 items. The perception index by the international community audiences [across the 18 countries surveyed] are presented in fig. 1 below. (see appendix II and III for the data on perception index/scores of the international community by country)

From the chart below, the perceptions of the international community audiences regarding the image of Nigeria particularly in terms of the Economic, Political, Emotional/Social and Public Safety situations are presented. While Brazil and Australia seem to have some varied perceptions regarding the economic and political situations about the country which are different from the perceptions of the audiences from other countries, deducing a valid conclusion from this bar chart may not be realistic. For clarity purpose therefore, the data were subjected to a hypothesis test
using ANOVA and post-hoc test methods. The results and findings thereof are presented thus:

Table 1: One-way ANOVA Test Result

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>404.883</td>
<td>17</td>
<td>23.817</td>
<td>.953</td>
<td>.510</td>
</tr>
<tr>
<td>Within Groups</td>
<td>17086.667</td>
<td>684</td>
<td>24.981</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>17491.550</td>
<td>701</td>
<td></td>
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</tbody>
</table>

Source: Field Survey, 2014

Table 1 above presents a one-way ANOVA test result on the comparison of the international community audiences’ perception regarding the image of Nigeria ever since 2009. Based on the result, it can be deduced that there is no significant (F= 0.953, p > 0.05) difference in the perception of the international community audiences regarding the image of Nigeria thereafter. Hence, the alternate hypothesis \[H_2\] was rejected while the null hypothesis \[H_02\] which states that there is no significant difference in the way the world (international community) perceives Nigeria and its people was accepted.

5 Conclusion and Recommendations

The approach adopted by government in its rebranding efforts did not conform to the conventional rebranding-a-country procedure; and that there is no significant difference in the way the international community perceive Nigeria and its people before and after the campaign. The rebranding Nigeria campaign strategies of the Federal Government of Nigeria did not achieve the aim for which it was set up as a result of the strategies adopted in its execution. Several burning issues such as allegations of corruption, poverty, insecurity of lives and properties, political and...
religious unrest, cybercrime, drug and human trafficking, bad leadership etc. that made the image of the country seemingly battered in the first instance have not been adequately handled. Not until government addresses more aggressively those things that went wrong in the first place, rebranding Nigeria remains an illusion and a sheer waste of resources. The steps followed in rebranding a country should also be systematic, convincing and all-embracing before results can be achieved.
References


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Appendix I: Countries Captured across the Six Continents of the World

<table>
<thead>
<tr>
<th>Africa</th>
<th>Asia</th>
<th>Europe</th>
<th>North America</th>
<th>South America</th>
<th>Australia</th>
</tr>
</thead>
</table>

Source: Field Survey, 2014
Appendix II: Perception of the International Community about the Image of Nigeria

<table>
<thead>
<tr>
<th>Perception Index</th>
<th>Africa</th>
<th>Asia</th>
<th>Europe</th>
<th>S/America</th>
<th>N/America</th>
<th>Australia</th>
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<tbody>
<tr>
<td><strong>Economic Situation</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1 Growing economy</td>
<td>2 -8</td>
<td>2 4</td>
<td>6 1  6</td>
<td>8 10 2</td>
<td>-4 2 -2</td>
<td>-6 -6 -2</td>
</tr>
<tr>
<td>2 Sizeable market for businesses</td>
<td>6 4 6</td>
<td>10 2 6</td>
<td>4 2 6</td>
<td>7 2 4 6</td>
<td>-4 1 2 4</td>
<td>3</td>
</tr>
<tr>
<td>3 Poor economic value</td>
<td>2 8 4</td>
<td>6 2 4 7</td>
<td>10 4 8 3</td>
<td>6 2 4 6</td>
<td>2 6 7</td>
<td></td>
</tr>
<tr>
<td>4 Low wages</td>
<td>4 -8 2 4 1 6</td>
<td>8 10 2 6 2 -2 4 -6 -2</td>
<td>-5 2 -4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 High productivity level</td>
<td>2 8 4 -6 6</td>
<td>4 7 10 4 8</td>
<td>3 -2 -6 6 2</td>
<td>2 -5 -4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Skilled labour availability</td>
<td>- - 2 -8</td>
<td>1 6 8 10 6</td>
<td>10 2 2 -4 -6 -2</td>
<td>-5 -8 -4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Low input costs</td>
<td>6 -4</td>
<td>4 10 2 6 4</td>
<td>2 8 10 2</td>
<td>6 6 -4</td>
<td>1 -2 4 3</td>
<td></td>
</tr>
<tr>
<td>8 Ease of doing business</td>
<td>2 2 6 6</td>
<td>4 4 7 10 6</td>
<td>-8 3</td>
<td>6 2 4</td>
<td>6 2 6 7</td>
<td></td>
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<td>9 Stable currency</td>
<td>- - - 8</td>
<td>-2 4</td>
<td>-4 2</td>
<td>6 2 1 1</td>
<td>-8 -1 -3</td>
<td>-4 4 -5 2</td>
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<td>10 Innovation</td>
<td>- - - 4</td>
<td>-8 2 -8</td>
<td>1 6 8 10 2</td>
<td>-6 2 -2</td>
<td>4 -6 -2 -5</td>
<td>-4 -4</td>
</tr>
<tr>
<td>11 Good infrastructure</td>
<td>2 -4 8 -8 2</td>
<td>4 7 10 0</td>
<td>-8 3 -4 -6</td>
<td>4 -2 2</td>
<td>-6 7</td>
<td></td>
</tr>
<tr>
<td>12 Well-run country</td>
<td>- - - 4</td>
<td>-8 2 -2</td>
<td>1 6 8 10 0</td>
<td>-4 2 -2</td>
<td>2 6 -2</td>
<td>-5 -4 -4</td>
</tr>
<tr>
<td>13 Good governance</td>
<td>- - - 2</td>
<td>2 2 2 2</td>
<td>6 4 2</td>
<td>2 -4 2 -8</td>
<td>-2 -4 -5 2</td>
<td>-2 -3</td>
</tr>
<tr>
<td>14 Raw material availability</td>
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**Public Safety**

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*Source: Field Survey, 2014*
Appendix III: Perception Index/Scores of the International Community [By Country]

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Source: Field Survey, 2014
Narratives About the Need to Develop the Sense of Cooperation of Managers

Kim Vu, CNAM, France

The European Business and Management Conference 2015
Official Conference Proceedings

Abstract
By considering that being able to nurture a sense of cooperation is one of the most important soft skills of the managers nowadays; our work aims to describe the process by which the managers develop this soft skill. The question is: When, where and how certain daily-life situations are linked to the soft skill learning?

Our theoretical framework for this research is inspired by the work of Schugurensky (2007) on informal learning with intentionality and consciousness as key indicators. The purpose of this article is to present the data collected from the Application files of the candidates to the CNAM MBA\(^1\), which are the narratives of the candidates and the recommendations of the third-party professional(s).

Keywords: informal learning, skill, needs, sense of cooperation, manager

\(^1\) The program: Master of Business Administration of the CNAM
Context

In 2014, the results of the survey conducted by ICM Research over 4000 adults including 900 managers for Brathay Trust (http://www.brathay.org.uk) revealed that 38% of them want job seekers and young people to give more importance to personal achievements and experiences in their job application. 37% of employers believe that job seekers are not aware of the importance that employers place on “soft skills”. 26% of managers involved in the survey believe that the “soft skills” should be presented before listing other qualifications.

The results of the survey also show that a high capacity for work, ethics, commitment, communication and especially the ability to work in team are the qualities, which employers look for most in the applicants. The survey results revealed that refresh the soft skills can be useful for senior employees as well as for newly recruited people. 30% of managers believe that employees who proactively improve their “soft skills” are more likely to be promoted. 24% believe that “soft skills” of employees help to distinguish their company from the competitors.

In France, according to the observation of APEC² during the same period, in the current uncertain economic climate, the management job markets in the regions are strongly influenced by their sector-based focus. In Ile-de-France and PACAC³ three over four expected hires have been realized by service sector companies. In Auvergne, Centre, Champagne-Ardenne, Franche-Comté, Haute-Normandie, Picardie Poitou-Charentes, the industry sector companies should represent at least 30% of manager hires in 2014. Finally, companies in commerce could represent nearly a quarter of manager recruitments in the Nord-Pas-de-Calais. The job opportunities for commercial managers are spread over almost the entire territory, while the recruitments of IT managers concentrate primarily in Ile-de-France and Midi-Pyrenees. The R&D managers would be more sought after in the regions where companies from leading industries are well established, as in Ile-de-France, Midi-Pyrénées, Rhône-Alpes, but also Bretagne, Limousin and Picardie.

Given the intense competition in the sectors that recruit well and the explosion of the number of eligible candidates, it is normal for employers that only the best candidates win.

That may be the reason why today employers are increasingly looking for the personal qualities that candidates could bring to the company in the short and long term. How to define the ideal candidate profile for a manager position? According to APEC, companies are looking for professionals with outstanding achievements, keen business sense, high potentials, good relational capacity which would be able to bring real value to the business. They wish to recruit candidates with an open mind, good business acumen, who are not only able to identify the problems, but also to quickly find solutions ... “We are looking for people, who are capable to communicate well, and are not afraid to get in contact with others, with whom we feel we can work effectively together”. This is how a senior executive officer of a large group expressed about his vision on manager recruitment criteria. In this respect, as the first meaning of the word “cooperate” is to “work with someone for something,

² L’Association Pour l’Emploi des Cadres
³ Provence Alpes Cote d’Azur Corse
participate, contribute to a work or a joint action\textsuperscript{4}, it is clear that "cooperate" becomes a very important activity of those, who exercise the manager profession.

The points raised above might probably have given an overview of the business perspective on the importance of soft skills, but the picture is still incomplete, since it lacks a key element - the managers’ perception of themselves. At what point in their life will they intend to change their normal behavior in order to be able to cooperate with others? Are they aware of this process of change? Within the limits of this document, we use the sense of cooperation or "to know how to cooperate" as an example to provide another perspective on these issues through the narratives of the candidates, applying to the CNAM MBA program.

**Subjects**

First, it is useful to know the entry requirements set by the CNAM MBA program’s founders to better understand the common typology of our research subjects.

As in the most of other similar programs, the CNAM MBA program requires candidates:
- A bachelor degree or equivalent degree
- A minimum of 3 years of work experiences
- A fluency in English

Let’s examine each of these three criteria. Regarding the first condition, the program founders, particularly the academicians, who believe that the MBA is also a Master program, like any other (Master of science, Master in economics, etc.), set this condition in order to ensure the academic intelligence, or in other words the ability of the candidates to follow technically complex subjects in the field of management, which are included in the contents of the MBA program such as: accounting, statistics or finance. To enter some MBA programs, you must obtain a GMAT score of between 550 and 700 out of 800 points. The GMAT test has been designed to measure the analytical writing ability (AWA), quantitative material capacity (mathematics) and verbal ability (reading, understanding and argument). However, the GMAT test does not measure motivation or ability to cooperate of the candidates.

The second admission condition reflects the nature of the CNAM. Indeed, all of the CNAM MBA "students" have an average of 10 years or even more of professional experience, which is much above the average of other MBA programs in France and far higher than of the MBA programs in the US or in Asia. Why is the number of years of professional experience so important? The answer seems closely linked to the perception of many senior executives like Paul Dubrule and Gérard Péllisson, two founders and co-presidents of Accor group between 1983 and 1996. In the book "The Plus Management", they said:

"We are ready to create jobs for life [...]" (Hickman, 1991). Robert Sternberg - a contemporary American psychologist has defined the "practical intelligence as the set of skills and attitudes to solve everyday problems by utilizing knowledge gained [...]. One uses these skills to (a) manage oneself, (b) manage others, and (c) manage tasks" (Sternberg, 2007). According to this logic, CNAM MBA program’s founders believe

\textsuperscript{4} Source: http://www.cnrtl.en/lexicography/coop\%A9rer%C3%
that enterprises need experienced managers. For them, the “signs” of management potentials could be reflected in managers’ a) "practical intelligence", including their knowledge of the culture and the history of the company; b) emotional intelligence and c) memory that retains the lessons learned from different situations experienced at work or in life.

The last requirement for good command of the English language continues to arouse great interest and provoke heated debate. The "defenders" of the French language were not convinced why a different language should be used, whereas instructors and learners all speak French. On the other hand, apart from the fact that the origin of this condition has come from the conformity of MBA programs, which were firstly established in the United States and then spread worldwide as a "quintessential American brand", the accreditation organizations such as AACSB, AMBA, EQUIS… impose this condition to all their members. Besides, for the "defenders" of the English language, the main reason is that the use of this language is more favorable to a very open international atmosphere.

Regarding the "fundamental purpose" of the CNAM MBA, according to the statement of the program’s founders, the original purpose of the CNAM MBA program was to accompany and lead engineers and scientists, with solid professional experience to the higher positions with managerial responsibilities. Therefore, in order to develop a double competence i.e. a combination of technical skills and managerial skills for the future managers, the founders of CNAM MBA program had based the curriculum building process on the lack of managerial courses such as marketing, law, accounting, finance, human resource management … in the traditional engineering curricula. Even though, the curriculum of the CNAM MBA program at the time still contained no course focusing on the development of managers’ soft skills.

Since 2003, to respond to the growing demand for high-level managers in different countries and in different sectors of the economy, the program CNAM MBA is no longer limited to just accompanying and providing management training to French engineers and scientists. Sixteen years after its creation (1987), the CNAM MBA program has opened it up to a wider, more international and much more heterogeneous population. Naturally, it has increased the number of classes and lectures taught totally in English. In the meantime, it has also introduced new elements beyond traditional management subjects in the curriculum, for example, the business game (simulation of running a virtual business), the role-play in communication and negotiation courses and several study trips abroad. And above all, during class time, instructors have begun to pay more attention to the development of soft skills such as team spirit, sense of responsibility and sense of cooperation etc.

Our observation for ten years has shown that not only the soft skills are gaining more and more importance, but they also become inseparable from knowledge and other hard skills. Thus, the need for acquiring a combination of different elements beyond the knowledge and hard skills has become a general trend in many enterprises and individuals. By adopting the idea of Jean-Marie Barbier which defines, without separating soft skills from hard skills that:

“skill as a property given to an individual is constructed by the inference from the involvement of the individual in situated activities…” (p. 37)”, we consider the potentials to cooperate with the others efficiently as one of the most important
properties of managers at work and we will focus on the process of acquiring this skill as a form of learning without going further in defining the soft skill itself.

Data

One of our hypotheses is that managers learn while conducting critical reflections on certain memories of their daily-life situations. Thus, in order to examine different forms of expression of critical reflections of managers, we were digging in more than 30 application files of CNAM MBA’s students.

CNAM MBA selection procedure requires applicants to answer four open questions:

1) What is your career goal after MBA and what role will a MBA program play in achieving your goal; 2) Describe one of your achievement experiences; 3) Describe one of your failure experiences; 4) Describe one of your leadership experiences.

Moreover, the application also contains two forms completed by a third-party professional, who usually are applicant’s employer or business partner. The forms ask these third-party professionals to answer the following questions:

1) In what conditions did you know the candidate and since when; 2) What are the main qualities of the candidate? 3) What are the areas in which the candidate will have to improve? 4) Are there any factors that may compromise the ability of the candidate to integrate the MBA program?

To illustrate our analysis we will describe below five cases. It is interesting to note that when some candidates have expressed a desire to take advantage of MBA to reach a position in the executive level, our curiosity was triggered by those who wish to change their profession, for example from a pilot or an engineer or a designer ... to a manager.

We'll see if the narratives of these individuals will confirm or prove the contrary of our hypotheses.

1) In the first case, the candidate stated that she would acquire good knowledge in management to access a high level management position. She wrote that the program shall give her confidence and help her to consolidate the long experience gained over the past twenty-five years. She was also aware of the achievements resulting from her efforts and personal abilities. Especially, in the third essay about her experience of failure, the word "incompatibility" has emerged as the key word. The situations used to illustrate the incompatibility included the conflicts between the number of work hours and family responsibilities, between her passion and her health, her sense of responsibility and technical defects of the companies she worked for.

Accepting the incompatibility between her job as a pilot and her family life is a "failure", remembering the days and nights without the possibility to attend family events, she even has once decided to refuse to carry out a mission received from the company, which, she said, did not meet the security conditions in order to illustrate her leadership experience. We’ve found that memories triggered, during this period, her intention to change the way of working with the others. As stated in the last sentence of her essay:
"The new phase of my professional life begins," which reflects the level of her consciousness of the learning process.

Besides, it is worth to note that both remarks made by the third-party professionals also focused on candidate’s way of reacting towards the others: "she should disregard the judgment of the others" and "a greater assertiveness would be necessary". (File no. 1).

2) In the second case, the candidate is a computer engineer and a self-taught individual. He described his learning as follows:
"My steps were successively instinctive, theoretical and pragmatic. I initially concentrated on the tasks, using only my thoughts, and then sought to justify my thoughts by theories. Finally, working on projects increasingly brought me the pragmatism required. Besides, I especially discovered the pleasure of leading a team, both in the context of a project and in the context of a business [...] I expect this MBA will give me a 360° view of what a business is, not only by a concrete and practical approach, but also by a scientific approach that could remove the doubts that never fail to attack me because of my unusual development path". (File No. 2). His motivation for a MBA seemed not to have any link with the sense of cooperation. However, the words that came to our attention were "doubts" and "atypical". According to him, “self-taught” means atypical. Succeeding in acquiring knowledge and skills by himself, he felt that he had always plenty of doubts.

In his second essay about the success, he wrote:
"I was not really aware of my success. I did what I had to do to make sure all went well. And finally I have realized the results of my works through the eyes of others”. Working and learning without passing academic evaluation, he needed to hear the opinions of others to gain the feeling of success and to reduce the feeling of doubts. Though he said that he found the pleasure in leading a team, he did express neither intention, nor consciousness on learning to work jointly with others.

In his third essay about the failure, he wrote that "Another mistake that I often made was to stay hidden behind modesty waiting for someone smart enough to recognize my quality and my performance”. He hid actually his intention to position himself among the others. His consciousness had been however triggered by the feeling of making mistake. We were surprised seeing the last line of his third essay, which was not about a professional experience, but it somehow revealed his feeling of regret on lacking "not having spent more time with your loved one before his disappearing".

Contrary to the first case, the situations selected by the candidate in the second case are related more to his needs for the opinions of others and for being their protector. In his last essay about leadership, he emphasized:
"Although the pressure became more and more important, I kept my team immune from it."

3) In the third case, the candidate is a young person, who had less than 4 years of work experience as a marketing coordinator. She expressed her intention to take advantage of the MBA, firstly to enter a large company and assume greater responsibilities and secondly, to earn high financial rewards. She noted:
“My goal, if I can get into this company after graduation will be to redesign the marketing and commercial activity to help the company achieve the success it deserves. It is clear that the MBA would be a passport to help me get into the business at a high level and add more value to the company with the skills I will learn”.

In the second essay, she said:
"The daily communication with the customer is the key to this project. I realized that during the designing process, good understanding of customers and a good cooperation with customers would lead to the best solutions”. Her sense of cooperation seemed to be generated in the early years of her career thanks to the experience she got by working with the customers. However, we have detected some “ironies” in another dimension of the cooperation, when the candidate revealed:
"I was hired as a designer. I was given responsibility for all decisions relating to the form, the style and even the decision to finalize the project. I was also given freedom to run the market launch. However, I was always positioned in the company just as a designer. At the same time, I began to realize that a designer had been actually considered just as an artist. This means that such serious tasks as marketing or management was out of the realm of my proven ability. [...] What was my failure in all this? Why none of the executives of this company were willing to recognize that a designer could also be an executive? Her initial intention was to obtain a passport, which will allow her to change her image towards the employer.

However, her real intention was also to cooperate with the company she will work for. She wrote
“By positioning myself right from the beginning at the management level, I could avoid such a situation while making the best use of my design capabilities.”

In the last essay, the candidate shown that she was conscious of her learning to cooperate with customers by understand the behavior of customers or to make different teams work together. She wrote:
"Understanding the buying patterns of international customers has been a great challenge. Another challenge was to ensure that the teams work effectively together."
In the meantime, her consciousness about learning was still not completed. The third-party professionals wrote:
"She needs to learn to relax more, do not expect too much from others as she is a perfectionist. She should understand that everyone is not as talented and hard working as she is. By doing this, she could show more understanding towards the others."
"She has strong managerial skills but her relative young age sometimes will necessitate her to learn diplomacy rules. She must also learn to allocate her energy and desire to do things well in order to optimize her time and resources." (File no. 3).

4) The motivation of the fourth candidate was described as follows:
"After working in a financial department for six years, I have acquired a very good knowledge of accounting, auditing, budgeting and reporting. Then, I have had the opportunity to take the challenge of creating a new department for a group of hundreds employees. Today I would like to continue my career by integrating, in the future, a general management position. The MBA will allow me to realize more easily the desire to discover other areas and other activities in my future career. I want to
change my position today to become a General Director. This change will allow me to broaden my skills. I want to have the opportunity to get a job in a foreign country. I want to develop my network and relationships through professional training." His intention to learn a new way of cooperation appeared only after gaining good knowledge and experience in the functional departments. It was expressed through the desire to discover other areas of activities, to broaden his skills and to work abroad.

His successful experience was presented as follows: "A significant successful experience of my career has been managing a project of re-engineering the manufacturing process in a factory. This 3-year project has taught me to undertake the following activities: review the project plan, manage the project team, meet the employees, follow the developers, perform the test and monitor the operations, encourage people to join a business plan, ensure change management and write procedures."

His experience of failure was: "I want to modernize the way information is transferred between the accounting and procurement services. I think I failed in my communication for this project. I was the only person who believed in the usefulness of the project. »

It has shown us a high level of consciousness of his learning process through involving people in different activities and communicating his ideas.

Regarding his leadership experience he noted:

"In my group, I managed to impose the choice of new technologies that have never been used in France and in my area. To carry out my work as a purchasing manager, it was essential to understand the innovation and to understand the new technology. I gained leadership in the group because my understanding of the technical aspects allowed me to develop new products." (File no. 4). The repetition of words "to understand" or "understanding" has shown us that, according to him, having knowledge were a must before going further in cooperation.

5) Very similar to the previous one, the candidate in the fifth case wrote that: "Now, as I have acquired a good technical knowledge and a lot of experience in coordinating multicultural project team, I would like to broaden my skills by acquiring more general responsibilities and therefore be able to occupy a new position such as Business Unit Manager ... And I'm planning to start my own business. In addition, the acquisition of new skills will bring me the confidence, which is also an important factor in running a successful business."

In her second essay about the achievement, she wrote: "With a good teamwork with R & D and deployment departments, the product could be developed and deployed within an acceptable time for all customers. Involving R & D department and program managers in the product definition phase and proposing a new scope to customers instead of trying to follow their fixed tight schedule are the key factors."
Again, in the selected situations to illustrate her professional achievements there was a lot of “teamwork” with the involvement of multiple departments and of customers. This shows her full consciousness about the activities which allowed her to cooperate with the others.

However, the chosen situation to illustrate her failure was related to another dimension of the cooperation:

"Following a corporate reorganization, I was transferred to the department of products and marketing as product line manager without any specific experience in product management. I decided to follow a MBA to acquire and strengthen some skills I needed. Unfortunately, my funding request was denied by the company and by the funding agency. Looking back made me realize that I was missing a clear career path and I was taken by surprise by the reorganization." This time, her consciousness had been triggered by the negative reaction of her company and of the funding agency towards her training request.

In her last essay about leadership, she wrote:

“...To be able to meet the tight schedule already engaged with the client, I decided to convince the R & D team to start with an existing prototype instead of working from scratch as they intended to do. It was not easy to realize this idea, because the company was very R & D oriented, so I started the discussion with the deployment team and technical project managers, outlining the advantages and disadvantages of this approach. Once we agreed, I submitted the idea to the R & D manager by developing the two alternatives and showing why the proposed solution was the best for all parties. I naturally develop leadership when I feel strong and confident in my role. It is still hard for me to show leadership in limbo or in unstable situations. It’s something that I continue to work on.” Her intention reached a new stage to develop the sense of cooperation even in a more complex and difficult situation, beyond her comfort zone.

According to the reference of the third-party professional, the areas she needs to improve are indeed leadership, self-management, self-confidence and intellectual wingspan. (File no. 5)

**Discussion**

During our research, the narratives of individuals confirm that the sense of cooperation is a very important element for the transformation of a worker to a manager. The intention to learn how to work with someone for something or with the others differently can be triggered by a variety of specific situations. The starting point may also be found in some critical condition in connection with the conflict between what the individual likes to do for himself and what he must do for others, with doubts about one’s own ideas, or with the high complexity level of a project requiring the involvement of other etc.

Now it becomes clear from these narratives that individuals presented in our research share a common point: the intention to learn a new way of working with others. After accumulating enough experience and expertise, instead of continuing to act alone and directly on the object of their work, the intention to learn from these individuals turned to a more sophisticated level. Now they want to learn how to influence others.
and to do things through the others, to assume responsibility for the work of the others and therefore to maintain much more complex interdependent relationships with people.

According to the classification of Schugurensky (2007), there are three forms of informal learning: self-directed learning (conscious and intentional), incidental learning (unintentional but conscious) and socialization (unintentional, unconscious). Regarding the last form, he said: "socialization (or tacit learning) refers to an almost natural assimilation of the values, attitudes, behavior, skills and knowledge that occurs in everyday life. Not only the learner shows no prior intention to learn, but he is absolutely not aware that a learning activity has occurred" (ibid, p.16). Within this research, the narratives of the individuals helped us to see that learning by reflexive thinking could be an intentional but unconscious process. Through the essays of the managers, we could realize that despite the intention to learn to cooperate with others, the individual were unaware of their learning activities. While facing the incompatibility or the conflicts, while having doubts or making mistakes, while feeling refused or failing, the individuals were actually conducting a very active learning process, which should lead them to the realization of their intention.

Finally, our argument is that the need to acquire a sense of cooperation plays a key role in the learning process of managers. Moreover, most of their narratives confirm the findings of previous studies, which demonstrate the influence of key people in the surroundings such as the family, colleagues, leaders or subordinates on the managers, because the sense of cooperation can not be taught in isolated conditions, without interaction with others.

**Conclusion**

Henry Mintzberg stated that manager's job is not limited to planning, organizing, coordinating and controlling. The narratives collected for our research confirm that the roles of a manager can be reversed if the tasks, the situations and the expectations change. Also according to Mintzberg, "The manager’s job is not ordered, continuous, sequential; it is neither uniform nor homogenous. It is extremely fragmented, irregular, changing and variable..." (p.71). While our observations show that manager's job does not always contain purely professional activities like other professions. Besides, their job consists of many fragments of different activities that are sometimes difficult to be named. These activities seem to be connected to each other by rather indirect and very complex relations. If direct relations only link several activities in a specific time sequence or in a specific place, indirect relations can involve all the activities of a manager around the meaning of his profession, through time, space and moreover through different cultures. In this light, it is a key element for our research that learning process of a manager cannot be considered as an isolated action, but a combination of changing activities depending on the situations.
Finally, we can add that the narratives of these individuals have allowed us to confirm the relevance of our hypotheses about learning through reflective thinking about the memories of the daily life of managers. We can also, at this stage, invite other researchers to use and test these terms, which we believe are appropriate for further research in the future.
References


Abstract
In recent publications, Management Education is frequently considered as a business industry, even though it is not similar to other industries due to the special characteristics of education. Accordingly, recent changes in Management Education are seen as a shift in business schools’ business model, i.e. a transformation to meet changing demands and globalization trends, or a turn in their business cycle. This review examines management education through the strategic management lenses in the following order:
(1) reviewing the history, the markets and the models of business schools in the field of management education (strategic background or context);
(2) summarizing previous researches that have implications for strategic management on business schools (strategic theories);
(3) applying Deephouse’s notion of strategic balance position between conformity and differentiation in the field of management education in Europe.

Keywords: management and business education, business schools, strategic management, strategic balance position,
Introduction

In the literature, Management Education is increasingly considered as a “regular” industry, even though it differs from other industries due to the specific characteristics of education. Recent changes in Management Education are seen as a shift in business schools’ business model, a transformation to meet the demands and the globalization trends, or a turn in their business cycle (Iniguez de Onzono and Carmona 2007, Hawawini 2005, Bennis and O’Toole 2005). The strategic management of business schools is therefore extensively examined to understand the strategy and development of the “industry of management education”. This review examines management education through the strategic management lenses in the following order: (1) reviewing the history, the markets and the models of business schools in the field of management education (strategic background or context); (2) summarizing previous researches that have implications for strategic management on business schools (strategic theories); (3) applying Deephouse’s notion of strategic balance position (1999) between conformity and differentiation in the field of management education in Europe.

History of management institution

The recognition of management education as an academic discipline was reinforced by the development in the world's economy, the growth industry on a global scale, and the attempts to introduce economic disciplines into the universities in the 18th century. Many scholars claim that the development of business and management knowledge originally started in Europe, but they disagree on which European countries the first insights of “business schools” were established, which could be Germany and/or France (Engwall 2007, Antunes and Thomas 2007, de Montmorillon 2011). Historically, the initiative of setting up business and management knowledge as an academic field started in Europe since the early 19th century, but the institutionalised and highly legitimised business schools have appeared in the US since the 20th century.

It is undeniable that US models are dominating the business and management education field around the world. Management education as a scientific standard could be tracked back to the 1950s with the US models of the Carnegie Foundation and the Ford Foundation to set up commissions to review the state of management education. The reports of the commissions formulated policy prescriptions that drove the development of universities and business schools towards a research and discipline-led focus, with an emphasis on scientific method, research and knowledge creation and a strong focus on graduate education in business. The changes and add-ups that the commissions proposed included operational research, other quantitative studies, behaviourally oriented studies, recruitment into US business schools of mathematicians, political scientists, psychologists, sociologists, and statisticians, and especially the development of the post-experience Master in Business Administration MBA programs (Engwall, 2007). Although the actual influence of American models varies among different European countries, the US models are said to have become "the benchmark for European schools" (Crainer & Dearlove, 1999, Engwall, 2007, Durand et al, 2008 & 2011) However, it was not until the second half of the 20th century that such MBA programs took off, triggering an on-going debate about the roles of management education, and the different models of business schools.
The role of Management Education

The role of Business schools and Management education, as Bennis and O’Toole (2005) summarize, is a dual mission that most business schools claim: (1) to educate practitioners and (2) to create knowledge through research. It matches the two goals that Simon (1967) assumes for a business school: “both the pursuit of knowledge for its own sake, and the application of knowledge to practical pursuits.” Concerning the educate on the practitioner side, this role is to “educate all the functions constituting a “business language” which it is indispensible to master, but it does not split into marketing plus finance plus accounting, etc.” (Mintzberg, 2005). Basso et al (2011) further consider that a business school’s task is either (1) training functional technical experts that acquire tools and know-how in order to occupy any defined function in an organization, or (2) preparing managers or organizers that influence others’ behaviour in order to defined collective action, or (3) educate future leaders that understand well the instruction of organizations in order to influence the construction of the society. Pfeffer and Fong (2002) demonstrate that ultimately a business school is about career and salary enhancements for learners.

As a counter point, K.Starkey et al (2004) consider business school as social institutions, as key players that contribute to the development of new ideas and new managerial skills. Starkey et al argue that business schools and management research have potentially central roles in the context of a knowledge society where education, training and research are core processes of social and economic change for a new era. Perez (2011) defines management as “knowledge for action”. Management must be learned mainly for and through practice, in contact with practitioners (those who are actively involved), without too much concern for academic research (those who simply observe). Nevertheless, most management researchers do not only do simple observations but also collect knowledge that is identifiable and contestable and when appropriate may be transferable and taught. Hence, a business school is based normally on a triple-function faculty whose members are at the same time researchers, practitioners and teachers.

Datar, Garvin and Cullen (2010) summarize the essential components of business school education in three fields to be taught: knowing (or knowledge), doing (or skills) and being (or a sense of purpose and identity). Whilst they do not reject traditional management theories, they argue that business schools need to reassess the facts, frameworks and theories that they teach (or the “knowing” component) while at the same time rebalancing their curricula so that more attention is paid to developing the skills, capabilities, and techniques that lie at the heart of the practice of management (or the “doing” component) and the values, attitudes and beliefs that form managers’ world views and professional identities (the “being” component).

Models of business schools

This part does not analyse the models of business schools on the basis of cultural or national indexes. Instead, it attempts to evaluate models of business schools based on their functions or performances as institutions. Business schools are organisations (Simon, 1967), thus organizational theories and designs are relevant tools to study them. Depending on the point of view, two models are applicable to business schools: a business model and an academic model. The former focuses on contents and

On the one hand, business schools provide education. On the other hand, they are professional schools, expected to deliver a valuable input because they are attended to improve one’s value on the labour market. Claiming that business schools are a problem in organisation design, Simon challenges to redesign and manage the business school towards an “equilibrium condition”. Bennis and O’Toole (2005) analyse what they prefer to call the “paradox between scientific model and professional model”, considered to be the actual cause of today’s crisis in management education. In the business model, business schools’ performances are measured by competences of graduates and understanding or grounding of faculty on. In the academic model, performance of business schools are evaluated by abstract financial and economic analysis, statistical multiple regressions or research and publications. By allowing the scientific research model to drive out other essential performance outlooks, business schools are institutionalizing their own irrelevance in terms of management practices.

What Bennis and O’Toole (2005) call a scientific model is a model where management is assumed to be an academic discipline like mathematics, chemistry or geology. Joining other scholars (Mintzberg 2004, Pfeffer and Fong 2002, Simon 1967), they claim that business is a profession, not a discipline, and thus rely on many academic disciplines. They call for a distinction between a professional and an academic discipline as a prerequisite before criticizing the scientific model of business schools.

Spender (2013) suggests that the design and model of business schools could be explored by looking at two issues: (1) the relationship between theory and practice; and (2) the distinction between generalities and particularities. As per the former relationship between theory and practice, Spender builds on Knight’s approach since 1923 to conclude that business educators can teach students by “synthesizing empirical generalizations with the available theory without expecting that theory to be determining.” As per the latter relationship between generalities and particularities, Spender points at the fact that general management is declining and being replaced by a booming production of specializations in business curricula aiming at resolving particular problems. The goal is to balance academic activities, knowledge, professional and managerial practice and experience in the teaching offer so that students could benefit from both academic and professional tools and skills. In order to achieve the proper dosage, many business schools have to hire adjunct professors who are professionals and experts to teach MBA courses, so that students could learn about connections between practical knowledge and academic disciplines.

Viewing a business school as a firm, Hawawini (2005) analyses the functions of business schools in the competitive environment with factors such as demands, branding, products, operation and delivery, finance, human resources and corporate governance. These seven factors result in a SWOT analysis that, in a context of global competition, lead business schools to change and adapt. Iniguez de Onzono and Carmona (2007) also argue that the process of globalization increases the effects of
the five forces in the business model of business schools: market concentration, products (structure and form of delivery of program), finance (sources of income), operation and distribution (distribution channel), demand and customers (profile of customers). This business schools’ business model is described from different angles in the literature, e.g. competition, funding and demand (Starkey and Tiratsoo 2007), merger and acquisition, economies of scale, funding and pricing policy (Durand and Dameron, 2008). Considering that business school is a business, Durand points at the “business becoming” attitude of the schools, that brings difficulties to see and evaluate their academic value (academic models).

Given the above insights into different views on the roles of business schools and the contrasts between the academic model and the business model of business schools, the following section looks into different theories on the strategic management of education institutions.

**Strategic management of education institutions**

*A new agora – Rethinking the business school (Starkey et al 2004)*

Criticizing business schools despite their actual profitability, Ken Starkey et al. (2004) point out the propensity of scholars to revisit the value and role of business schools. The authors suspect that these schools are facing a deep crisis in the functional logic of the university and its role in relation to the economy and organization governance. They suggest that business schools and management research should be rooted in academic traditions and become potentially a new knowledge spaces, called a new agora – defined by Nowotny et al (2001) as the new public space “where science and society, the market and politics commingle.”

Measured by this new agora strategy, Starkey et al (2004) try to reconfigure business schools with different scenarios:

1) The scenario of little change is where business schools adapt their policy and training to a “business as usual” extrapolation of the present. It fits with the analysis of history and market development of business schools, given the steady growth in the US, Europe and then expanded to other continents (Far East, Asia, Latin America)

2) The scenario of change for the worse occurs when business schools are seen as “educationally, culturally and ethically bankrupt”. New providers such as management consulting groups and corporate universities enter the education industry, meet more expectations from the public and gain competitive advantages.

3) The scenario of change for the better is where business schools are more like academic entities. They concentrate on the search for knowledge that is relevant to the needs of individuals and the society, which constructs their core competence in the competitive market. They focus on the creation of knowledge appropriate to changing business conditions.
**Social construction process (Antunes, Thomas 2007)**

As Starkey et al, Antunes and Thomas (2007) also look at the dilemmas of the business schools. However, against Pfeffer and Fong (2002) who assert that “business schools in other countries (outside the US) imitate US schools in the model of business education”, they highlight with other European researchers (Durand et al, 2011), key elements of differentiation between European and US business schools and suggest that these differences announce the future competitive strategies of European schools.

Antunes and Thomas posit that a distinctive set of national business school models have emerged over time in Europe, using a theoretical model based on a social constructionist approach. This model has three levels:

1) “Industry beliefs” exist about the boundaries of markets and competitive interactions: business schools are defined in a national context and they are influenced by the cultural, legal and regulatory idiosyncrasies of their home country.

2) Norms or “industry recipes” emerge: The industry logics and beliefs about business schools are shared globally, with standardisation of the US style business school model and the MBA as the flagship management program. In this level, the dominant industry model becomes the “recipe” for the others to imitate. As a result, it creates certain leading national industry examples.

3) Inter-organisational performance differences and reputational orderings manifest: The trend of national reputational elites beyond the US business school model continue to confirm. At the same time, “consumerism pressures and quality accreditation processes” also strengthen the reputational position of business schools and the “social codings and interpretation of business school differences in performance” are confirmed accordingly.

**Foresight scenarios (Durand, Dameron 2008)**

From a strategic perspective, Durand and Dameron (2008) posit that “management education institutions are developing strategies to connect with each other, and to create a European area for management education.” Business schools and universities echo one after another with multi-literalist strategies, with programs taught in English, with joint curricula from various countries, various campuses.

These authors identify nine challenges for business schools in the world, in regarding the US schools as runners ahead in the field, and point out the seven exogenous pressures on the environment of management education and industry of business schools. Based on these findings, Durand and Dameron draw out five scenarios about the future of business schools and management education: (1) drifting away; (2) European Management stands up; (3) Business Schools as vendors; (4) Mergers and acquisitions; (5) Reactive adaptation.

The authors look further at three geographic clusters of activities that business schools are developing: the United States (or North America in general), European countries (or OECD countries) and the BRICS (Brazil, Russia, India, China and South Africa).
and developing countries. This analyse helps the authors to place the current strategic postures of the business schools in their scenarios, as follows:

1) Forging ahead (North America cluster) – reinforce the domination of leading schools on the business education industry.
2) Penetrating to influence (North America cluster) - focus on strategic group of leaders, make full use of the resources and dynamics and get access to the group.
3) Catching up (OECD cluster) – imitate and follow the US leading schools
4) Importing from the leaders (BRICS cluster) – try to access knowledge and adapt it to the national context
5) Ignoring the leaders (OECD cluster) - operate within national boundaries and own academic, economic forces, with a risk of isolation in the global management environment.
6) Diversifying sources (BRICS cluster) – aim at finding alternate sources to be independent from leading schools’ suppliers.
7) Differentiating to compete by leveraging national or regional specificities (OECD cluster) – operate as in the second posture, with an observation of the leading schools and their tendency.
8) Blending and cross-selling (BRICS cluster) – move firmly towards a customization of imported knowledge and build capacity to create local knowledge.
9) Recognizing and competing (North America cluster) – acknowledge potential success of other business schools in regional and global market and develop a plan to compete.

**Strategic balanced position in the literature**

Past strategic Management researches have evidenced that strategy is shaped as a firm’s position between similarity and differentiation. This highlights the relation between competitiveness, legitimacy and performance. By differentiating, firms reduce competition, thus less strategic similarity increase performance (Competitive advantage - Porter 1980, Barney 1991). By conforming, firms demonstrate their legitimacy; thus greater strategic similarity increases performance (Institutional theory -DiMaggio and Powell, 1983). Deephouse (1999) has introduced the strategic balance theory, according to which a firm should be balanced between differentiation and conformity.

Durand and Dameron’s strategic scenarios and postures will be reviewed in the light of Deephouse’s strategic balance theory, in order to demonstrate that although with different expressions, the strategic balanced position has already been identified and described in the existing literature on management education.

**The new agora as future “re-legitimization” for business school (Starkey et al 2004)**

Business schools are the object of numerous criticisms that they cannot ignore. They also face numerous demand of modern, up-to-date knowledge from the business world. By redefining the new agora to the “changes for the better” scenario, business schools achieve a re-legitimization. They look beyond the business school as a “honeypot to attract students and start discussing the things that are supposed to be the university’s core and distinctive competence, its raison d’être, the nature of knowledge, the creation of knowledge and its dissemination.”
Starkey et al borrow Habermas’ idea (1976) that there is a relationship between the socio-cultural system, the educational system and the occupational system in management education. Looking at the diffusion of management ideas, Engwall (2007) further notes that management education (educational system) is engaged in reciprocal relationships with three other significant management fields, namely practice, consulting (occupational system) and media (socio-cultural system).

The processes are then reinforced by the interaction between the fields, where management education is the response to problems arising from the other fields, solutions from practice and consulting are imported to education and solutions proposed by business schools are exported to practice. The argument of Habermas is that the socio-cultural system provides the basis for the legitimacy of the other systems. Consequently, business schools should gain legitimacy by:

- being a new kind of knowledge space and not just a knowledge carrier, where different disciplines and different stakeholders (scientists, politicians, company and industry representative, non-governmental agencies and pressure groups, media and others) interact and learn from each other;
- being a space of advancing business issues, that is opening debates in which scientific and policy discussion about business and management take place and give rise to greater public awareness of these issues;
- engaging in production, through research and teaching, of more socially robust knowledge, building closer links between business and other faculties. Not only this would comfort their legitimacy, it would also expand the sphere of influence of the business schools.

In this redefinition of the role and value of the business schools and their management programs, Datar et al. (2010) add the concerns of globalization, leadership and integration. In this “new agora”, these authors list eight unmet needs of the society and market to be considered. In other words, the act of redefining the new agora, meeting these unmet needs and focusing on those demands of changes is a means to refine the legitimacy of business schools and management trainings.

In the European context, education was historically the domain of the government and of the religious authorities (Durand, Dameron, 2008). There is a distinction between students going to the universities to acquire knowledge, including management knowledge; and apprentices joining enterprises to acquire skills. Management education institutions and universities were created to focus on research and now develop strategies to connect with each and to create a European area for management education.

The Bologna Agreement signed in 1999 is an attempt to mutualize European resources and achieve a worldwide recognition on European education, including management education. To strengthen further the knowledge space of business education in Europe, Dameron, Durand et al (2011) propose that the European model of business school be designed or redesigned in the typically European style.

For now however, European management education cannot be considered as homogenous. In each country, the business schools thus have to decide whether they
should follow the US model or differentiate themselves. And in the latter case, how could they differentiate themselves? Only by relying on their cultural value-added?

**Differentiation in social construction process (Antunes, Thomas 2007)**

Following Habermas, Antunes and Thomas (2007) consider that each school is influenced by a set of cultural, legal and regulatory characteristics in its home country. This social construction process makes those characteristics the basic differentiation factors that could help certain business schools to surpass others. In fact, Antunes and Thomas make a link between the social constructionist perspective and the inter-organisational performance differences and reputational orderings and claim that European schools could perform as well and compete with the dominant US schools.

At each level of social construction, these authors indicate various sources of difference:

- Level of industry beliefs in the national contexts: schools assert themselves by applying institutional and national differences that could be shaped by factors such as language, culture, regulation, standardisation and size.
- Level of industry recipes in regional and global contexts: schools use competitive differences as recipes. They include factors such as governance, funding and endowment, international mindset, innovation, knowledge transmission and corporate links.
- Level of reputational orderings is linked with social capital differences such as rankings and reputation and brand loyalty factors.

Therefore, where Starkey et al suggest that business schools should redefine their legitimacy, Antunes and Thomas recommend them to focus on differentiations at several levels as a competitive advantage in the business school industry. These differentiations could be the drivers of their business model. Turning such differentiation into a competitive advantage may be a complex endeavour, however, given the fierce competition on the business education market.

From a European perspective, the three categories of differentiations are illustrated in opposition with those of the US schools.

Concerning institutional differences, variations in terms of language, history and culture are numerous, although European schools ultimately operate with the same international standards and accreditation agencies.

Regarding competitive differences factors, European universities and business schools are often public, making funding and endowment less flexible as in the US. Apart from funding resource, European schools still have strong assets in international mindset, innovation, creative ways to develop research and learning programs.

In terms of social capital differences, reputation effects undoubtedly influence the competition and the recognition by the market, with elites groups in each European country, or with up-climbing rankings and accreditations in international organizations.
**Balanced scenarios (Durand, Dameron 2008)**

As seen above, Durand and Dameron have distinguished three geographic clusters, and in each cluster, have developed three strategic postures for business schools towards five foresights scenarios for 2020. As shown in the chart below, there is a clear correspondence between these postures and Deephouse’s different strategies of conformity, differentiation and balanced.

<table>
<thead>
<tr>
<th>Europe / OECD (except US)</th>
<th>Conformity</th>
<th>Differentiation</th>
<th>Balanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catching up</td>
<td>Ignoring the leaders</td>
<td>Differentiating to compete by leveraging national or regional specificities</td>
<td></td>
</tr>
<tr>
<td>Penetrating to influence</td>
<td>Forging ahead</td>
<td>Recognizing and competing</td>
<td></td>
</tr>
<tr>
<td>BRICS</td>
<td>Importing from the leaders</td>
<td>Diversifying sources</td>
<td>Blending and cross-selling</td>
</tr>
</tbody>
</table>

In Europe and OECD countries other than North America, business schools can adopt an imitation strategy, that is, a “catching up” posture similar to conformity. “Ignoring the leading players” is a clear differentiation attempt, with a risk of isolation from the environment. The in-between posture of “differentiating to compete by leveraging national or regional specificities” is how business schools try to find their strategic balance position.

In the North America zone, "forging ahead" is a differentiation strategy in which leading schools rely upon existing structural advantages, the gap in available resources, the strength of existing brand names and the control on the research domain. "Penetrating to influence" is conformity because schools use a well-established domination of the zone to infiltrate potential challengers. The third posture - "recognize and compete" - seeks a balanced position, *i.e.* recognize the potential emergence of competing approaches to management as a way to prepare to compete.

In the BRICS zone and developing countries, "import from the leader", *i.e.* learning from US business schools, is clearly a conformity response; whereas "diversity sources" is an endeavour to differentiate. "Blend and cross-sell" is the strategic balanced situation, where schools move towards customization of management knowledge imported (conform) while at the same time progressively develop a capacity to create local knowledge (differentiate).

Durand and Dameron consider that management education and research in Europe is “in a race to follow the dominant US model of business schools, mainly through imports and imitation.” To a large extent, this conformity is necessary to be onboard in the management education industry. However, some of the traits of the US model of management education are worth importing, but others traits are specific to the US context. For these, Europe ought to leverage its own specificities and use such differentiation traits to gain the competitive advantages. Specifically, European schools could focus on social sciences and humanities, on the intercultural variety of the EU, on the involvement of the public sector in education… etc.
The authors call this dual strategy "balanced dynamic portfolio over time", so that Europe is reinforced in the position of a second supplier of management knowledge worldwide, offering an alternative source of management education and research to business schools in the world. Such dual stance is not easy to develop and hold, however. It is difficult for European business schools to clarify how they can capture this dual strategy into the curricula of the various programs they offer and how the entire portfolio is deployed in an integrated, consistent way. Durand and Dameron’s scenarios suggest that in order to compete in the international arena of business schools, European business schools should follow a dual strategy combining an active "catching up" strategy (towards US schools) on the one hand, plus a dedicated "differentiating" strategy on the other hand. Furthermore, they emphasize that European stakeholders including business schools and universities, national governments, the European Union institutions (the Commission and the Parliament) and industries (large European firms as well as SMEs) should join forces to create the conditions for a European Management model that could challenge the US leaders.

Below is a mapping of the literature examined in the previous sections. It clearly shows that if schools want to compete in the management education arena, they must focus on the top level of balance strategic position to get recognition in branding, reputation, governance or curriculum.

**Balance strategic factors** (Based on the strategic scenarios of Starkey et al 2004, Antunes, Thomas 2007 and Durand, Dameron 2008)
Conclusion

Deephouse’s concludes his presentation of his strategic balance theory by stating that “The ultimate relationship between strategic similarity and performance depends on the relative strength of the differentiation and conformity propositions over the range of strategic similarity.” He suggests that further development of this theory can help researchers better understand the trade-offs between differentiation and conformity, and that further research should examine if strategic balance theory applies in other markets facing strong competitive and institutional pressures (rather than commercial banks).

Arguably, it is the case of the market of management education analysed in this paper. Though this market is analysed from various angles and using different models, there is a broad consensus in the literature on the fact that by reinforcing legitimacy and enhancing differentiation, European business schools should head towards the balance strategic scenario.
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Success and Performance: A UK SMES Perspective

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Abstract
There is a growing need to understand of Small and Medium sized Enterprises (SMEs) goals so as to assess their performance and sustainability for SMEs, governments and funders. This qualitative research explores the views of SMEs about success and the factor which influence success. The paper reviews the relevant literature associated with success. It then using depth interviews with 25 SMEs in the service sector explores the SMEs views on success and performance. Success is defined broadly by SMEs covering financial and non-financial aspects, this is consisted with the literature. Yet financial success is primarily seen in terms of viability. In terms of factors affecting success the SMEs highlighted three aspects: employees’ performance, customer relationships and networking to achieve sustainability. These were explored to indicate the specific features which may aid success.
1 Introduction

Historically business success has tended to be viewed in terms of financial success, yet it is widely accepted that this is only one of many elements. This is especially true for Small and Medium sized Enterprises (SMEs) in how they view success, (Jennings and Beaver, 1997). Since there is growing need to understand SMEs’ goals to access their performance and sustainability, the aim of the current paper is to explore through qualitative research how SMEs view the concepts of success and performance.

SMEs are a diverse set of businesses reflecting the goals and ambitions of the owners/managers. The concept of lifestyle SMEs and high growth SMEs are two terms that show fundamentally the external visions of SMEs. Lifestyle is seen perhaps in a negative light, assuming a retreat from economic contribution, whereas high growth is seen as a champion of the new economic high ground. Yet one has to remember that these are labels established by external people and not the attitude of SME owners. All governments wish to support SMEs because they represent a sizeable part of the economy and wish to encourage foundation and growth of SMEs. Many schemes have been devised to support SMEs, yet their effectiveness is limited because start-up businesses tend to be fragile, Timmons (1999). Often the reason for their fragility is cash flow or funding. Governments rarely produce schemes that overcome such issues.

It is this lack of understanding of the SME sector that underpins the current research and leads us to explore with SMEs themselves the issues of success and performance. Hence the contribution of this paper is acquiring further knowledge about SMEs for those best placed to supply it. Obviously we accept the challenge that the views expressed in this paper are likely to be idiosyncratic, but this is in line with most of the previous insights gained about SMEs. Too many authors have in the past looked towards the conditions for ‘success’, ‘growth’, ‘born global’ and ‘innovatory’ or tried to diagnose these features in SMEs. Most people, we assume, would acknowledge that business success is often characterised by chance. Hence give this chaotic behaviour, attaching concepts or building models would seem pointless. It is clearly better to look at the goals, ambitions and behaviours, and so establish the diversity of approaches that lead to viability.

The paper will initially review the relevant literature. The following section will describe the methodology. It will then examine SMEs views of success in their own words. It will then consider aspects of their behaviour which may make them more viable. The final section will discuss the issues raised.

2 Background

Friedman (1962) stressed that the only role of business is maximisation of profit. Yet such a view seems old fashion with the greater knowledge we have gained from studies of SMEs. Whilst success for a SME is seen as closely linked to SMEs performance and is
often described by financial status or economic survival (Hudson et al., 2001, Reid and Smith, 2000), other authors acknowledge businesses also have non-financial goals that will lead to alternative methods for defining business success, especially for small businesses (Walker and Brown, 2004). Koen and Mason (2005) use the Rhineland Model to suggests business management should pursue actions that are optimal for a broad class of stakeholders rather those that serve only to maximise shareholder interests.

The motivations behind the setting up of businesses vary and these greatly affect how businesses assess SMEs success. New SMEs are primarily concerned with the struggle for survival, and so focus on funding and cash flow are major concerns, (Walker and Brown, 2004). Some authors argue firms should also consider a wide range of measures in assessing their success see(Wood, 2006, Koch and Strotmann, 2006).

Birley and Westhead (1994) argued that motives, skills and ambition will influence the direction of a SMEs business. The business owners’ sense of achievement, enjoyment, job satisfaction and even continued survival will play a role (Greenbank, 2001, Walker and Brown, 2004). The past research has often focussed on a single measure and not the multidimensional scales which seem more appropriate Simpson et al. (2012). A richer description is required (Andersén, 2010, Tan and Peng, 2003) as solely using financial measures cannot capture the complexity of small businesses in different sectors (Jarvis et al., 2000). It is soon obvious that SME owners do not run their business only to achieve financial benefit, they run their businesses for other reasons, such as lifestyle, work-life balance (Jennings and Beaver, 1997), social impact or social responsibility or to operate a decent business model (Walker and Brown, 2004, Jarvis et al., 2000). Others will be take professional pride and status considerations into account. This is highlighted by (Simpson et al., 2012).

A common theme is that growth of the business as a measure of success. The form of growth becomes an issue, though, whether it is increasing the number of customers or expanding the geographic region, (O’Gorman (2001) and Perren (2000). Sometimes it is interpreted as market share, sustained business expansion or even becoming more widely recognized (Feindt et al., 2002).

Having established the diversity of views of success from researchers exploring SMEs, one might consider what facilitates success. In previous research others have explored features which may aid the performance of SMEs. Whilst the current study has considered a wide range of factors in this paper the focus will be on three seen by SMEs as enabling success: employees’ performance, relationship with customer and the networks that sustain SMEs.

Performance of a business is geared to its workforce, (De Jonge and Dormann, 2003). Xerri and Brunetto (2011) indicate that employees’ behaviour and employee performance can bring significant competitive advantage to a SME. Employee performance has been widely used as an indicator to measure a firm’s overall performance (Bain&Company
Guide, 2013). This is also true for SMEs (Wilkinson, 1999). Given the nature of SMEs they have expectations on employees in terms of commitment of time and effort. Yet it can lead to conflicts for employees over work-family balance. Hence SMEs environment may be more stressful leading to poor performance amongst employees which could lead to lower customer satisfaction (Netemeyer et al., 2005). Therefore, it is critical to be able to manage employees appropriately to achieve the goals of a SME (Wilkinson, 1999).

Given SMEs nature, size and flexibility, it is more likely that capable employees will be empowered to recognise a problem and create appropriate solutions (Ardts et al., 2010, Carmeli and Spreitzer, 2009, Carmelli et al., 2006). Loss of individual employee may be more damaging to SME than large companies. Investing in employee training not only enhance employees’ capability and so firms’ productivity, performance and profitability, but some authors argue it also increases the likelihood of retaining the employees (Chandler and McEvoy, 2000, Patton et al., 2000, Cosh et al., 1998, English, 2006, Lattimore et al., 1998). It also can enhance small firms’ survival rate, and it is found that successful SMEs provide more employee training than less successful ones (Chrisman et al., 2003, Reid and Harris, 2002). However, small firms have limited resources and capital, the business owners are more likely to have a negative attitude towards employee training, especially those who only chase short-term profitability, they prefer to recruit more skilled employees rather than investing in any employee training (Matlay, 1999).

Customers/clients are the main stay of all businesses. Developing appropriate customer relationships is critical. Some argue that it allows businesses to identify the most valuable customers and provide customised service based on their various requirement to achieve long term profitable relationship with their customers (Lindgreen et al., 2006, Porter, 2011). In Ittner and Larcker (1998) research, they support that there is close relationship between customer satisfaction and a company’s non-financial and financial performance. Similarly a series of authors (Davenport and Beers, 1995, Hammer, 1996, Reinartz et al., 2004, Ernst et al., 2011) regard CRM as a way of achieving a business’s objective. For SMEs customer performance measurement can acts as one functional tool to measure their business performance.

Customer satisfaction can be achieved through providing higher customer value from a business’ products or services. Simpson et al. (2001) propose customer value must be inclusive of all the benefits a firm provide direct and indirect. Some researchers regard customer value as the value creation process from a customer perspective that firms provided to customers such as entire products, services, personnel, post service, and image values (Armstrong et al., 2012). However, SMEs still face great challenges in acquiring and retaining customers. Sometimes the focus on survival means SMEs pay too much attention to short-term sales rather than developing the longer-term relationship with customers(Stonehouse and Pemberton, 2002).

Zumstein (2007) suggests customer satisfaction can be discussed from both consumer’s perspective and company’s perspective. In terms of consumer’s perspective, customer
satisfaction can be considered as customer’s attitude toward how the company fulfil their needs and requirement. SMEs often take individual client’s needs and requirement more seriously and try to satisfy every individual client. In terms of company’s point of view, customer satisfaction can be considered as the firms’ capacity to reach consumers’ needs and requirement economically, emotionally and psychologically (Zumstein, 2007). SMEs prefer to have more personal touch with their clients and often spend much effort in contacting with their clients and establish close relationship with individual client than large firms (McDougall and Levesque, 2000).

The networks a business is associated with can be a determinant of its success. Walter et al. (2006) defines network capability as a firm’s ability to develop and utilise inter-organisational relationships in order to gain access to various resources held by other actors. Network capability has long been regarded as a special type of resource belongs to firms that is non-transferable to enhance firms’ efficiency and effectiveness, it is more important to SMEs who rely their business mostly on referrals and word of mouth, (Eisenhardt and Martin, 2000, Makadok, 2001). Under this circumstance, many scholars view network capability through theoretical viewpoints such as resource based theory (Barney, 1996, Barney, 1991), dynamic capability theory (Eisenhardt and Martin, 2000), and organisational knowledge based theory (Grant, 1996, Conner and Prahalad, 1996). Kale et al. (2000) describes the quality of a network as relational capital, and this may be more important for SMEs than others. Well-established SMEs tend to build more business to business network and customer relationship network.

Recent arguments claim the increasing degree of network capability can have great effect on improving firms’ performance especially for start-up SMEs and achieving long-term success. Entrepreneurial orientation affects the firms’ operation and further development, but it is not capable to compete in the current market due to the complex market environment without taking account of the networks it belongs to. Many researchers claims the importance of entrepreneurial orientation for firms to be competitive, but empirical studies show that there is no straightforward relationship between entrepreneurial orientation and firms’ desired outcomes (Lumpkin and Dess, 1996, Covin and Slevin, 1990, Dess et al., 1997). Since firms’ value creation could be derived from the collaboration relationship with their network partners, SMEs are encouraged to be capable to develop their social networks, professional networks, exchange relationship networks and other networks that can profit SMEs business (Dyer and Singh, 1998, Gulati and Gargiulo, 1999). A vast of research has proved a developed network of strong relationships with various partners or collaborators can bring firms’ much competitive advantage because firms’ network capability enable them gather various resources from others such as market information, problem solving, collaboration support, venture funding, investment et al. (Klofsten and Jones-Evans, 2000, Hoang and Antoncic, 2003, Clarysse and Moray, 2004). Therefore, entrepreneurs should embed their ambition in more networks and develop their network capability to meet more opportunities to create more value and competitive advantage (Walter et al., 2006).
The literature acknowledges the diverse view of success within SMEs, accepting the major determinant are the owner’s goals. Growth seems to underpin many of the attitudes towards success, but this is not solely in terms of finance and includes opening up new markets and view of personal development. It is also clear that the factors for success do include the quality of employees, maintaining customer satisfaction and having broad supportive networks. The current research goals are to explore in more depth the views of SMEs of success and establish the factors that affects. Hence it explores the issues raised in the literature to confirm or refute assertions made.

3 Methodology

This study is based on a pragmatic base and has employed both a survey of SMEs and depth interviews with a range of SMEs. 24 UK firms were involved in the interviews and 82 survey responses were collected. Table 1 below are the SMEs involved in this research. The focus has generally been on service sector that most widely connect to people’s ordinary life such as education service, management consultancy firms, marketing agencies, software firms, catering service, law firm etc. though, a few businesses would not fit into this category. Most of interviewees are CEOs, managing directors, founders, business partners participated in the interview, and three of the interviewees were with employees. The semi-structured interview was last for around 1 hour and the questions mainly focus on the nature of their business, their definition of SMEs, their view of success, the measures they use to assess their performance, their business performance influencing factors, their potential business risk and how they maintain their business sustainability etc. While the survey focuses on questions similar to interview questions that are more selectable to improve the fulfilment rate of survey. The interview responses were recorded and the transcripts were used for coding analysis and direct quotes. The survey response was used to triangulate quantitative responses.
Table 1 Research UK SMEs

4 Research Findings

This section of the paper will primarily report the findings of the interviews. The first step is considering the concept of success held by the SMEs. This will be followed by exploration of the three factors highlighted in the literature review: employees’ performance, relationship with customer and the networks that sustain SMEs.

4.1 Defining Success

Whilst Friedman’s view (Friedman, 1962) that the only role of business is maximisation of profit has been in the past prevalent, there is now a wider acceptance that success covers both financial and non-financial elements. The more recent behaviour has been to characterise businesses into specific classes which have over-tones about their desire for financial success. High growth innovatory businesses are viewed as ultimately deriving high profits, but it is not clear that this is always the case and often there needs to be substantial investment to achieve such a goal. Other business type described as life-style
implies that the goal is to break-even. From the interviews it is clear that all the businesses interviewed wished to be viable and many saw a positive financial outcome as important. Hence the paper looks firstly at views of SMEs on Financial Success and then on the wider concept of Non-Financial Success.

As stressed earlier there is an element of chance about success. The following illustrates many aspects such as importance of networking as well as the luck of the draw that was from a survive mobile phone network service firm:

“First and foremost, a lot of B2B always is relationship, communication and networks and a lot of luck I would say. Luck in being in the right place with the right people. Meeting the right people, for example, if you go to a networking event, who is sitting next to. It is all about finding the right people at the right time. If you meet that person, your ability to influence that person, to get a good impression and knowledgeable about your products, and understand your business.”

Hence ultimately one should not over emphasise aspects for success without bearing this chaotic behaviour in mind.

4.1.1 Financial Success
Finance is always an issue for SMEs but it does not mean it is the only goal. It is more often seen as being viable rather than making millions. “We get to reach full financial sustainability as an organisation. And that's ultimately a measure of its success.” These sentiments were common across all SMEs interviewed. The concept of viability can be seen as the ability to effectively manage. It stems from managing the cash flow well “We've got quite good cost controls. We don't waste money. We're quite efficient. It's quite well managed financially”. This can be either be because of skills developed “we are very experienced in what we do so that kind of counts for a lot, Our cash flow is good, our clients pay us on time we have no bad debts” or alternatively because of the nature of the business: “But it could be very successful because (of) very low amount of money need to be used and the running cost is very low. Potential risk is very rare”. This partially reflects the day to day management of survival which was encountered in many of those in the early stages.

4.1.2 Non-Financial Measures of Success
There are many elements that make owners/managers feel that they are successful. Generally they are elements that all would acknowledge such as business growth, more clients, increase their employees, others are more about their contribution to society or their own personal environment.

As found in the literature growth is important as is illustrated by a respondent who represents a consultancy service, “And the company has grown, it has grown quite a lot, internationally, and that is very attractive.” It is, however possible to find other
respondents who think they have achieved the right size “I think we have the right size of business, and this would be our aim, not to let it grow to become too big”. Yet the type of growth is varied it might include businesses that are entering new international markets “China’s a huge market for us. Brazil is a huge market for us. Yeah, any of these developing – you know, China’s more developed, but even Africa is a big market for us, starting to become”. For others it may be developing the range of products “we’ve developed a secondary business, a spin off business, the first spin out business is already looking to be a great success.” Being able to develop the business is also a measure of success amongst some SMEs “The main part of the long term strategy of success business is to bring in an accounts manager. Somebody can look after my clients.” and “Because of the staffs and the standard we have and keep trying new products things like that. I think it is a success business”.

Businesses have become more concerned with their societal influence as a measure of success. The two following quotes highlight this: “We are the main sponsor that international (science) festival … the school children to the festival ensures that science can be seen as fine and can be interesting” or positively supporting social responsibility “In terms of social culture, social responsibility is a big thing for us… integrated in the local community, we help charities in the local community. We make sure we don’t do anything detrimental to the environment.”

A small proportion, though, see success in terms of moving on by selling their current business “So I make an exit plan prediction…we make it (business) successful then Mr Google and Facebook, they will be very happy and will come and buy us…” These are potentially serial entrepreneurs, as is indicated by the following quote “for long term running, at the end the day, we want to sell the project to somebody or license to somebody”.

Obviously there are a number of owners who feel success is achieving the lifestyle they want “Well, I want to achieve a happy life. My business gives me sufficient life style. I do not want to become a millionaire, I want to make something I am proud of that has dignity”. It also highlights the pride that owners have in their businesses. Another owner demonstrated that it is something that fits in with their family commitments and has succeeded: “What I want to do is to create a business that did not need to run it all… I can spend all the time with my daughter… what I want to do is until my little girl went to school just run the business like that way as lifestyle business. And now it is ready and set up, and running smoothly”

4.2 Enhancing Success
In the research three main features arose which were seen as particularly significant in ensuring success: relationship with customer and the networks that sustain SMEs.
4.2.1 Employees’ Performance

The size of SMEs frequently means that team work is important to achieve their goals. Two quotes emphasis this “We are a small business, we depend on each other, it is very supportive environment” and “But then we rely on our employees and our team members to come back with how we’re going to achieve those goals”. Others perceived that there are dangers from not being a team “Because if they start doing things themselves, it does not all work together. You have to make sure everybody works together.” Some of the SMEs evidenced the nature of the relationships as collaborator within the team: “he has got a lot to share, also, I think it is a very strong learning environment in the company. There is very flat hierarchy, the manager will listen to everybody. Everybody learns from everybody, it is very open to new ideas”. It also has, though, to be an atmosphere that is tolerant “I try to let them make their own mistakes. Let us try it, if it does not work we will take a different course of actions...We do not want to make a culture that people are afraid to make mistake”. Building the team needs action and some SMEs feel that comes through socialising “So we have social club events… one is cocktail master class. You can learn how to make cocktail...We pay for the drinks Friday night every month. We have company BBQ every year...We do that for keep our employees happy; The fact is that quite often we get personal relationship with each other”.

The positive aspects of small enterprises arise from their flexibility and perhaps their fertility: “…constantly innovation, lots of new ideas, perhaps the problem is that there are too many...choose the good ones (ideas) and have the time to invest the ideas and pursue it” and “Innovation performance, I mean especially for employees suggestions. We always take this on board.”

An aspect of being successful, though, is having people with sufficient experience. Hence they will tend to hire those with track records rather than those that need training: “if they do take a new person in, and the new person is incapable to work independently and ask a lot of questions, they end up just losing money. Because we spend more time on training them. Being a small business, it (training) is not the priority. It is always growing their business.” Essentially they do not feel that they can use up valuable resource in training.

Obviously SMEs need to manage their staff and take appropriate action if things go wrong. “I need to work on my employees measures and place sometimes different places to make them happy to feel loved”, the manager continues “In terms of the employee’s performance, if people are needed to be told they are very slow and not working correctly. It is my job to do that. If people are doing a good job like tonight, I will always thank them. I think saying thank you can hold a lot more than anything else.” Others realise that the business needs build structures to work as one SME owner indicates: “In terms of employee performance, what we do is we set ourselves as I said with the third director, goals at the beginning of every month. That’s reviewed by the third director, everybody’s performance is measured by the third director, every month, then we set the new goals. And it's kind of a pace setting and it works incredibly well.” It is reassuring
that business realise the key element as the following quote illustrates: “Because at the end the day, the organisation capability will manage what your people can do and how your people are. And you also have employee capability.” SMEs also accept the use of appraisal to achieve goals: “I think we know and work alongside employees which means we have got the advantage of having very good knowledge of what they are doing. We do have an appraisal system for staff but I would have to say most of it is done day to day. Knowing what training requirements they need, of what areas they should be working in, of how you share knowledge on a day to day basis”.

Also the employees themselves see the benefit of being aligned to the goals of the business: “I really like my work, I can be really honest with my bosses about what I want to do and what I want to achieve and they know what my personal goals are and those line up with our company goals”. SME do have many advantages over other business informality and flexibility, with often flat organisational structures: “I would say there is a lot of freedom. No really strict rules, there has been a lot of trust and individual respect between people; The managing director... Yes, he has got a lot to share, also, I think it is a very strong learning environment in the company. There is very flat hierarchy, the manager will listen to everybody. Everybody learns from everybody, it is very open to new ideas”.

4.2.2 Customers

Obviously clients/customers are the lifeblood of business and SMEs acknowledge this and they realise the most important aspect is customer satisfaction: “So the customer satisfaction measure should be number one”. It ensures survival but also generates business: “Customer satisfaction measures, we got a lot of referrals from customer satisfaction”. This desire drives many of those interviewed through the perception of customer value: “I would say Customer Value yes, because if it wasn’t for that we wouldn’t be in business. Because the product we sold to them is what they want”. For some it is a basic tenant of business “If we do not value customer, we will not have our product sell or service provided. It has meaning to what we do. We are service industry, we should have value. We have to see the result of what we do. Otherwise, I will not do what I meant to do.” It can, though, be taken to the extreme for some SMEs with laudable but may be not plausible goals: “you have to make sure every single job and every single customer is 100% happy”.

Some SMEs, though, are concerned with over all lifetime value of the customer. Perhaps to the level of being too mechanistic in the view of their customers: “So on a company level we measure our performance based on customer attrition: ... Customer wins: how many customers are we winning? ... so what is the average amount that each customer pays us per month...Cost of customer acquisition: ... And we want to make sure that our cost to customer acquisition is always less than the average lifetime value of our customer.” It renders customers more to an accounting activity rather than viewing role to provide that desired service to all customers.
Getting feedback on customers’ satisfaction is not straightforward, as the following quote highlights that those in the service sector perceive it easier to get feedback in the production sector “So if you were operating making widgets or such like it is actually much easier to get relevant customer feedback. If you have got a limited operation you can get quite good customer performance feedback.” Its criticality is expressed in terms of retention: “if we pleased the customers they can come to us and be loyalty to us, If somebody is not happy, they will go to your competitors. You need sure you provide better services”. They are aware of follow up through a variety of forms: “After sales, what we want to do is sending email to them and let them respond to it and talk about their experience and upload into our website and social medial.” Their smaller size allows them to become more orientated to the customer and gain more customer satisfaction.

4.2.3 Network

Networks were a recurrent theme in the research. SMEs regard networks as informal structures with opportunities to meet people and present their ideas. It is a wider definition that as a formal structure. Many reflected the desire to find customers. Using events are a typical approach as indicated by the following quote “We have seriously strategies to gradually increasing the visibility. You have to keep pushing it...promoting in conferences...Every time there is a big exhibition, they will have an exhibition centre … So I can go and sit in their stand, in their place”. “the number of conferences we are asked to address”, “I can say through our networking, for example we tend to talk or join some events” and “Trade shows, so we go to a couple of trade shows every year. Like trade shows, so you have a bunch of companies come together and they like an exhibition.”

Visibility is an important issues and use of social media is seen as a useful tool to achieve this “For instance, I put something in Facebook, so people can see it and it brings people in. Well, people like the stuff as well. ...” and “And I think that around the 15,000 likes in Facebook; We’ve got about 2,000 Twitter followers I think roughly, I think for us LinkedIn has really been the number one driver of growth,” Yet this may be illusory without it turning such into customers/clients.

Seeking customer engagements is critical and again several SMEs mentioned how they developed their business with such interaction “Rather than produce parts, we now go to and work with our customer. We share ideas with our customers. We come to them with our solutions.” Yet also network with other businesses can aid such as referrals “I suppose we’ve been in the fortunate position of most things are introduced to us. So most business we get is coming from either other lawyers, or other surveyors, providing work to us … I know it seems quite odd, but if I had to estimate I would say ninety five percent of work we get comes from recommendation”. Another expresses the same view of referrals from their network “we do not go to speak to them (Clients) directly. Quite often we get references from people who work in London....it is word of mouth”, “…So it was a referral system for each other” and “Referrals, I know where the referrals come from, I have a system to target that area”.

214
It is not all collaboration but that does not necessary we that treated as opponents for example “we keep an eye on our competitors but we do not have any – we meet them and we get on great with them. It is just we do not – we do not attack them in any shape or form. We work together with many of our competitors”. It might be described as symbiotic “we keep an eye on our competitors but we do not have any – we meet them and we get on great with them. it is just we do not – we do not attack them in any shape or form. We work together with many of our competitors”. Partially this might be driven by lack of capacity or in order to gain from a competitors’ skill base.

An aspect is the use of networks to gain information from trade fairs and events “we are able to get a lot of qualitative feedback from them and the information they give is usually very good”. Yet SMEs appreciate a “Your surround with the right people. You believe in yourself…and surround with support people”.

5 Discussion

SMEs are diverse but they do have some commonality. The literature did highlight that there was a diversity of measures of success and this was also found in the current research (Simpson et al., 2012, Lussier and Pfeifer, 2001). Many of those interviewed perceived it as important to achieve success across a broad range of measures. The measures of success appear to be related to the owners’ ambitions.

As found in the literature SMEs are concerned about financial success (Walker and Brown, 2004, Simpson et al., 2012, Smith and Amoako-Adu, 1999), but often this is in terms of viability. For those in early stages often the emphasis is on day to day management whilst others do have longer term views as SME matures. Two SMEs, though, saw the potential for gain by selling on their businesses once fully established, these tended to be in the software domain.

In terms of factors that aid success the research found that employees’ performance, relationship with customer and the networks that sustain SMEs were elements brought up by the SMEs. The literature supports these elements. It was found that the advantage SMEs have is the size and flexibility. This allowed them to innovate by using their employees where it might be more problematical for larger businesses. Yet it does mean that the SME has to operate as a team, without which it will have greater difficulty in succeeding. It was also emphasised that SMEs require employees to be capable and tend not to wish to hire people requiring training. They seemed less interested in investing in employee training. This seems to be in contradiction some of the past research (Kotey and Folker, 2007, Patton et al., 2000).

Customers are important and growth of customer base or spread of customers was seen as measures of success. The SMEs appreciated that customer satisfaction was important to business. Hence they were keen to retain their customers. There were a number of
SMEs, though, who clearly saw customers as part of an account exercise and wished to evaluate their cost benefit to the business.

The importance of networks is crucial to many SMEs. The network is viewed as any opportunity to develop contacts and is informal. It might be a trade event or network with collaborators or competitors, but also social media. These networks provide information and also customers. As Kale et al. (2000) suggest they are an asset of the SME and relates to Bourdieu (2011) concept.

6 Conclusion

This paper has focussed on success and performance of SMEs and is part of large piece of work being carried out. It is clear just from those interviewed from the service sector that diversity is a major issue when discussing SMEs. It is also clear that some of the terms used colloquially such as life-style, high growth and innovatory provide false insights into SMEs. These businesses are more idiosyncratic dependent on the owner than can be easily pigeon holed into specific group.

Both the review of the literature and then findings of the research offer issues which provide some insight into SMEs and their views on success and their goals. Financial viability is a critical issue but beyond that the diversity begins. Their goals are determined by their personalities. There are, though, commonalities. The importance in small organisations of teamwork is seen as critical to success. Their raison d’etre for existence is satisfying customers. The need for good networking across a range of networks is also a major key to success. Hence networks can be seen as an asset to an SME, both formal and informal networks.
Reference


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Abstract
This study empirically investigates the relationship between entrepreneurial orientation and organizational survivability as well as the mediating role of human capital management in the relationship. Primary data was generated from 144 top level management staff of the target banks through structured questionnaire and analysis was undertaken in four major phases: the demographic, univariate, bivariate and the multivariate. The findings reveal significant relationships in all hypothetical instances; all three empirical referents of entrepreneurial orientation adopted which are; innovativeness, proactiveness and risk-taking are found to be significantly associated with organizational survivability, also human capital management was also revealed to partially, yet significantly, mediate the relationship between entrepreneurial orientation and organizational survivability. On basis of these, the study recommends that: (1) banks should imbibe an attitude of openness to change through flexible service systems and service delivery processes (2) work patterns, systems and structures should be made permeable enough to allow for the flow of new ideas to foster improved operational standards (3) creativity should be encouraged among staff through support systems which celebrate suggestions, inputs and quality contributions based on experience, skill or knowledge; and (4) employees should be recognised and treated as the only resource with the potentials to expand or shrink output at will depending on state of mind.

Key words: Change, Survivability, Innovativeness, Proactiveness, Risk-taking, Entrepreneurial Orientation, Human Capital.

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Introduction
The modern world is characterized by change; changes in political order, economic relationships and technology. These changes are global and inter-connected in such a way that an action in one variable would most definitely lead to a reaction in another (Wickham, 1998). The ability of organizations to survive is the ability to adapt and to thrive amidst these changes which in most cases may not be favourable. Organizations require suitable and conducive environments with a reasonable form of stability to be successful; such environments entail the socio-political, economic and cultural factors which invariably influence the workings of the organization (Ogunro, 2014; Bello, 2011). In his study, Francis (2008) followed the attempts by various scholars in the application of organizational change theories to the analysis of human organizations; outlining the systems theory (Foster, 2005) which considers the constant interaction of the organization with its environment, and then the complexity theory (Ferlie, 2007) which sought to address the observed shortcomings of the systems theory in dealing with the complexities of the environment (Francis, 2008; Byeon, 2005).

Bello (2011) observed that the Nigerian business environment is rife with various challenges and uncertainty stemming from poor power generation, obsolete technology, lack of synergy between government agencies, poor infrastructure, insecurity, weak policy implementation, poor transportation network and connectivity as well as a high level of corruption and unethical practices amongst government officials (Ogunro, 2014). In his opinion, Wickham (1998) argues that entrepreneurship is a key factor in addressing the challenges and opportunities presented by change. He observed that entrepreneurship as a style of management is primarily aimed at pursuing opportunities and driving change, being also strategic in nature; since it concerns the entire organization, it is an approach that can also be learnt.

According to Burns (1996), by encouraging the entrepreneurial spirit amongst their workers, organizations despite their large sizes can still compete favourably and aggressively with smaller ones. This principle, the author argues, is focused on the effective management of workers; one in which they are regarded as a primary source of quality and productivity gains. Studies have over the years sought to link the innovativeness and proactiveness of organizations to their survival, continuity and success. Through the adoption of entrepreneurial activities, scholars have long argued that organizations stand a better chance at success and even leading the market. Entrepreneurial orientation as a survival tool can best be utilized in maximizing the opportunity and change-crises which the business environment presents (Al-Swidi & Mahmood, 2011; Al-Swidi & Al-Hosam, 2012).

In the search for precursors of organisational survival, scholars have made several attempts using different variables; examples slack resources, strong organisational ideology as predictors of organizational survivability (Meyer, 1982), industry analysis through the use of the external factor evaluation (EFE) Matrix (Mullich, 2009) and organisational citizenship behaviour (OCB) as predictor of corporate resilience (Gabriel, 2015). This paper attempts to empirically investigate the mediating role of a well-managed human capital on the association between entrepreneurial orientation and organizational survivability within the Nigerian banking industry. It is aimed at assessing the intervening effect of a controlled workforce on the correlation between their firms’ entrepreneurial tendencies such as innovativeness, proactiveness and a willingness to undertake risk and the benefits of such activities on the organization.
and its ability to thrive and survive in an ever changing and volatile environment such as that of the Nigerian banking industry.

1.1 Objectives of the Study
The major objectives of this study are specified as follows
i. To ascertain the association between entrepreneurial orientation and organizational survivability
ii. To evaluate the mediating effect of human capital management on the association between entrepreneurial orientation and organizational survivability

1. Literature Review
2.1 Entrepreneurial Orientation
Stam and Elfring (2008) define entrepreneurial orientation as the processes and structures of organizations as well as their behavioural tendencies towards innovativeness, proactiveness and risk taking which in turn serves as an expression of the organizations’ overall entrepreneurial posture. In their study, Rauch, Wiklund, Lumpkin, & Frese (2004), link entrepreneurial orientation to the strategy making process of the organization which as they observe relates to the planning activities, policies and practices which provide a platform for entrepreneurial decisions and results; thereafter describing entrepreneurial orientation as entrepreneurial-strategy making processes which serve as tools for key decision makers in erecting a purpose for their organizations, sustaining adopted visions as well as the creation of a competitive advantage for the concerned organization.

Entrepreneurship encapsulates all activities within an already existing organization which re-vitalizes, re-invents and which is aimed at re-capturing the target market or audience of an organization. It is concerned with actions which renew and recreate the organization or certain activities within the organization in strategic ways aimed at improving performance, survival or effectiveness (Sharma, 1999; Roux & Couppey, 2007). Roux & Couppey, 2007 describe entrepreneurship as an action expressed through the processes of new business venturing and strategic renewal made possible only through the effective utilization of entrepreneurial behaviour within the organization. In their opinion, entrepreneurial orientation within an organization does not stem only as a result of external changes in the environment but also as a result of organizational culture, leadership and organizational structure. As a construct, entrepreneurial orientation is defined operationally as the propensity of the firm to be innovative, proactive and open to risk (Covin & Slevin, 1989; Lyon, Lumpkin & Dess, 2000).

2.2 Organizational Survivability
Organizational survivability in this context is described as the ability of the organization to continue in existence (Sheppard, 1993). It is used to denote sustained learning and adaptive characteristics stemming from the organizations tendency for continued adjustment to changes; seen and unforeseen; in the internal and external environment. This description implies an ability or effort by the organization to continue to meet with the demands of the market, its staff, shareholders, investors, host communities, the government and other interested parties. According to Sheppard (1993), survival, he argues translates into an organizations profitability margin, size of market share, organizational size, age and general
financial conditions which as he observes all inter-relate to enhance functionality. This is as Ogunro (2014) attributes the survival and success of organizations to various factors; firstly technology, which translates into the organizations research and development activities, technological incentives, and the level of change associated with technology. Secondly, ecological factors which translate into contextual and environmental aspects such as climate issues and weather which affect farm and industrial related businesses. Thirdly, Legal factors which translate into discriminatory law, consumer law, antitrust law, employment law, safety and health law and finally economic factors which translate into interest rates, inflation rates and exchange rates. Ogunro (2014) dwells extensively on the survivability of the organization as a product of its success in surmounting identified environmental challenges and seizure of opportunities.

2.3 Entrepreneurial Orientation and Organizational Survivability

According to Stam and Elfring (2008), the adoption of an entrepreneurial posture by organizations would facilitate an improved capacity for the identification of innovative opportunities with potentially large returns, premium product demands based on market changes and customer behavioural tendencies as well as wealth creation through the strategic acquisition, development and leveraging of resources which promote opportunity and advantage-seeking behaviours. This is as Al-Swidi & Al-Hosam, (2012) identify the success and survival of an organization as being dependent on its ability to satisfy its customers through the nature and quality of its products and services. This process as further argued by the authors emphasizes the role of entrepreneurial orientation as a wealth-generator, value-contributor and growth sustaining process. The association between entrepreneurial orientation and organizational survivability is further emphasized below

2.3.1 Innovativeness and Organizational Survivability

Innovation can be defined as an organizations tendency towards experimenting with new ideas and supporting creative processes which precede the actions of competitors. It is a concept that is concerned with the creative tendencies of the organization through the organized actions of workers and research activities carried by the organization (Coulthard, 2007; Covin & Miles, 1999). Innovation encompasses the various inventive measures taken to enhance production and delivery as well as the nature of the product or service. Based on the observations above the following null hypothesis is to be empirically tested:

HO$_1$ There is no significant relationship between innovativeness and organizational survivability

2.3.2 Proactiveness and Organizational Survivability

Proactiveness measures the extent to which the organization is self-motivated and self-invigorating in such a way that it not only thrives in spite of competition but charts new market courses as a result of its ability to shape the environment and seek out new opportunities through the introduction of new products and brands (Coulthard, 2007; Venkatraman, 1989). Based on the observations above the following null hypothesis is to be empirically tested:

HO$_2$ There is no significant relationship between proactiveness and organizational survivability
2.3.3 Risk-taking and Organizational Survivability
Risk-taking measures the extent to which the organization is willing to undertake risk-related ventures and to accept risk as part of everyday business. It relates to commitment on the part of managers, being the representatives of the organization, to engage in risk-related endeavours, incurring heavy debts or large resource commitments based on expected huge payoffs or profit due to seized market opportunities (Lyon, Lumpkin & Dess, 2000). Based on the observations above the following null hypothesis is to be empirically tested:

H03: There is no significant relationship between Openness to risk and organizational survivability

2.4 The Mediating Role of Human Capital Management
Human capital management entails the control, regulation and development of the human element, behaviour, skill, knowledge, talent, experience and activity within the organization through policies and other managerial measures. As an organizational resource, it has been identified as a source of innovation and strategic renewal which when effectively managed can produce a wealth of added value and competitive advantage for the organization (Lin, 2003). Wright, Dunford and Snell (2001) observe in their study, efforts by researchers in linking individual knowledge development to training thereby facilitating the application of knowledge and skill within the organization in ways that enhance adaptive structures and innovation. Barney (1991) argues that the arrangement and management of human capital is crucial to achieving organizational success. This is best explained through the interplay of innovation as an aspect of entrepreneurial orientation and human activities within the organization. Through the development of human capital which as opined comprises the skills and knowledge of the employee, organizations are able to radically innovate with a boldness that reflects confidence and at a pace that establishes market leadership (Shane &Venkataraman, 2000; Shane, 2000). According to Shane (2000), prerequisites of entrepreneurial outcomes extend beyond just the development of new products; it includes a good understanding and knowledge of the market, experience with market and demand changes, attitude towards innovations, managerial expectations as well as specific industry related skill sets. Therefore based on the observations above the following null hypothesis is to be empirically tested:

H04: Human Capital Management does not significantly mediate the relationship between Entrepreneurial orientation and organizational survivability.

2. Methodology
As a quasi-experimental study, the cross-sectional survey method is adopted in the generation of data (Baridam, 2001). The area covered is Rivers state and the industry is that of banking within the state, while the unit of analysis is the organization. The target population of the study consists of all twenty four (24) commercial banks within Nigeria but the accessible population comprises of the headquarters or main branches of all these banks within Rivers State. although the unit of analysis is the organization, the unit of measurement and primary data source comprises of top level management personnel within the target companies; from this a total number of 240 top level managerial staff constituted the sampling frame for the study and a sample size of 144 members was obtained using the Krejcie and Morgan 1970 sample size table (Sekaran, 2003). Six (6) participants were selected from each bank using the purposive selection process which focused on managers of the following departments; human resources, research and data, service marketing, financial services, information
The study, which is dominantly quantitative in nature, adopts the structured questionnaire in the generation of primary data for the study. Questionnaires were personally administered, followed up and retrieved as a result of the proximity of the target banks which were all located within the Port-Harcourt city metropolis of Rivers State. Entrepreneurial orientation is operationally measured through innovativeness, proactiveness and risk-taking and a 4 item instrument is adapted from the work of Vitale, Gilierano and Miles (2004), and that of Mahmood and Hanafi (2013) was used to measure each variable. Similarly, organizational survivability was measured on a 7 – item instrument adapted from the work of Olotu (2009) and that of Ekanem (2001) which addresses survival through customer and market oriented satisfaction indicators, product relevance, and profitability and growth measures. Human capital management was measured on a 7 – item instrument adapted from the work of Hatch and Dyer (2004) and that of Subramaniam and Youndt (2005). The scaling method was that of a 5 – point Likert scale with a ranking of 1 = strongly disagree, 2 = disagree, 3 = undecided, 4 = agree, 5 = strongly agree (Sekaran, 2003; Bryman & Bell, 2003; Eketu, 2009).

Analysis was undertaken in four phases beginning with the demographic, which using percentages, describes the frequencies of responses to various sample characteristics, secondly; the univariate analysis in which the central tendency and dispersion of the variables are described through mean scores and standard deviations, thirdly; the bivariate analysis, in which all previously hypothetical statements of bivariate relations are tested using the Pearson Product Moment Correlation tool, and finally, the multivariate analysis in which the mediating role of human capital management in the relationship between entrepreneurial orientation and organizational survival was examined using a three step regression method (Kenny & Baron, 1986, Asawo, 2009).

Table 1. Reliability statistics for the instruments

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach alpha</th>
<th>No. of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovativeness</td>
<td>0.865</td>
<td>4</td>
</tr>
<tr>
<td>Proactiveness</td>
<td>0.774</td>
<td>4</td>
</tr>
<tr>
<td>Risk-taking</td>
<td>0.956</td>
<td>4</td>
</tr>
<tr>
<td>Organizational Survivability</td>
<td>0.904</td>
<td>7</td>
</tr>
<tr>
<td>Human Capital Management</td>
<td>0.934</td>
<td>7</td>
</tr>
</tbody>
</table>

**Source:** Research Data, 2015.

3. **Findings**  
4.1 **Demographic analysis**  
For the demography of the study, characteristics such as the gender of respondents, qualifications, years of bank existence and operations, availability of branches etc. are examined with intent to understanding prevailing situations in the industry relative to the study variables. Presented below are the descriptive statistics on the sample characteristics.
Table 2. Showing the sample characteristics of the study

<table>
<thead>
<tr>
<th></th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>56%</td>
</tr>
<tr>
<td>Female</td>
<td>44%</td>
</tr>
<tr>
<td><strong>Qualification</strong></td>
<td></td>
</tr>
<tr>
<td>First degree</td>
<td>64%</td>
</tr>
<tr>
<td>Master’s degree</td>
<td>36%</td>
</tr>
<tr>
<td><strong>Merged Banks</strong></td>
<td></td>
</tr>
<tr>
<td>Bank is a merger</td>
<td>41%</td>
</tr>
<tr>
<td>Bank is not a merger</td>
<td>59%</td>
</tr>
<tr>
<td><strong>Years of Banking Operations</strong></td>
<td></td>
</tr>
<tr>
<td>11 – 15 years</td>
<td>22%</td>
</tr>
<tr>
<td>16 – 20 years</td>
<td>44%</td>
</tr>
<tr>
<td>21 years and above</td>
<td>34%</td>
</tr>
<tr>
<td><strong>No. of Branches in the State</strong></td>
<td></td>
</tr>
<tr>
<td>Less than 5 branches</td>
<td>11%</td>
</tr>
<tr>
<td>5 – 10 branches</td>
<td>57%</td>
</tr>
<tr>
<td>More than 10 branches</td>
<td>32%</td>
</tr>
<tr>
<td><strong>Use of contract staff</strong></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>67%</td>
</tr>
<tr>
<td>Moderate</td>
<td>33%</td>
</tr>
</tbody>
</table>

**Source:** Research data, 2015

The findings reveal an unequal distribution in gender with a higher percentage of male respondents as compared to their female counterparts, also most of the respondents have obtained first degrees with some having masters degrees, although the diploma and PhD degree options were made available on the questionnaire, both carry zero (0%) responses. The findings also reveal a greater number of percentage response rates for non-merged banks as compared to mergers, while for bank existence; response rates reveal most of the banks have been operational between 16 – 20 years. Responses also show that a greater number of banks have branch offices numbering between 5 – 10 branches in Rivers state, the field work revealed various geographical clusters of branches especially at industrial and up-beat urban areas. For staff categories, most of the banks depend to a high degree on the use of contract staff, a possible outcome of the growing trend in the banking sector in cutting down expenses especially human related.

### 3.2 Univariate Analysis

For the univariate analysis, the study adopts a base mean score value of $x>3.5$ for significant levels of variable tendency towards agreement (affirmative/positive), $3.5>x>2.5$ mean score values for moderate levels and $x<2.5$ for significant levels of disagreement (negative/non-existent). Interpretations are relative to a standard deviation of $s<2.0$ signifying low dispersion and $s>2.0$ signifying high dispersion of values (Ahiauzu, 2006; Asawo, 2009).
Table 3. Descriptive statistics for empirical referents of entrepreneurial orientation

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovativeness</td>
<td>144</td>
<td>1.00</td>
<td>5.00</td>
<td>3.9340</td>
<td>.97611</td>
</tr>
<tr>
<td>Proactiveness</td>
<td>144</td>
<td>1.00</td>
<td>5.00</td>
<td>3.9271</td>
<td>.79930</td>
</tr>
<tr>
<td>Risk</td>
<td>144</td>
<td>1.00</td>
<td>5.00</td>
<td>3.9757</td>
<td>1.07145</td>
</tr>
</tbody>
</table>

**Source**: Research data, 2015

Table 3 illustrates the descriptive statistics for the empirical referents of entrepreneurial orientation (innovativeness, Proactiveness and risk-taking). As indicated, all three variables carry a mean score of \(x > 3.5\) value and standard deviation values of \(s < 2.0\) therefore based on the nature of the scale adopted, the 5 –point Likert, the figures point to a relative tendency for the positive functionality of the identified variables within the target banks.

Table 4. Descriptive statistics for the study variables

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survivability</td>
<td>144</td>
<td>1.14</td>
<td>4.86</td>
<td>3.8780</td>
<td>.87494</td>
</tr>
<tr>
<td>Capital</td>
<td>144</td>
<td>1.29</td>
<td>5.00</td>
<td>3.8502</td>
<td>.99769</td>
</tr>
<tr>
<td>Entrepreneur</td>
<td>144</td>
<td>1.08</td>
<td>4.92</td>
<td>3.9456</td>
<td>.90723</td>
</tr>
</tbody>
</table>

**Source**: Research Data, 2015

Table 4.Illustrates the descriptive statistics for the study variables with all variables carrying a mean score of \(x > 3.5\) with relative standard deviation scores of \(s < 2.0\). The values indicate a tendency for agreement as relates to the positive functionality of the identified variables within the target banks.

3.3 Bivariate Analysis

For the bivariate analysis, the study adopts a 95% confidence interval implying a 0.05 level of significance which serves as criterion for the acceptance or rejection of each previously stated null hypothesis relative to obtained p-values.

Table 5.test for hypotheses (Bivariate)

<table>
<thead>
<tr>
<th></th>
<th>Survivability</th>
<th>Innovativeness</th>
<th>Proactiveness</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survivability</td>
<td>Pearson Correlation</td>
<td>1</td>
<td>.733</td>
<td>.444</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td></td>
<td>144</td>
<td>144</td>
<td>144</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).**

**Source**: Research data, 2015
Table 5 illustrates the test for the three previously postulated bivariate hypothetical statements. The results show that for hypothesis one; there is no significant relationship between innovativeness and organizational survivability ($r = 0.733, p = 0.000$), hypothesis two; there is no significant relationship between proactiveness and organizational survivability ($r = 0.444, p = 0.000$), hypothesis three; there is no significant relationship between risk-taking and organizational survivability ($r = 0.573, p = 0.000$).

Therefore based on the results illustrated, all previous bivariate null hypothetical statements are rejected as the study finds that:

i. There is a significant relationship between innovativeness and organizational survivability

ii. There is a significant relationship between proactiveness and organizational survivability

iii. There is a significant relationship between risk-taking and organizational survivability

Fig 1. Linear regression diagram of entrepreneurial orientation and organizational survivability

**Source:** Research data, 2015.

Figure 1 illustrates the linear relationship between the latent predictor variable; entrepreneurial orientation and the criterion variable; organizational survivability. The figure shows a significant correlation between both variables with $R^2$ value at 0.383.
3.4 Multivariate Analysis

For the multivariate analysis, the three step mediation test using regression (Kenny & Baron, 1986) is used in the test for the mediating role of human capital management in the relationship between entrepreneurial orientation and organizational survivability. The test is carried out in three basic stages, first; the dependent variable (organizational survivability) is regressed on the independent variable (entrepreneurial orientation), secondly, the mediator (human capital management) is regressed on the independent variable (entrepreneurial orientation), and finally the dependent variable (organizational survival) is regressed on both the mediator (human capital management) and the independent variable (entrepreneurial orientation).

Table 6. Regressing the dependent variable (organizational survivability) on the independent variable (entrepreneurial orientation)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>1.524</td>
<td>.257</td>
<td>5.920</td>
</tr>
<tr>
<td></td>
<td>Entrepreneur</td>
<td>.597</td>
<td>.064</td>
<td>.619</td>
</tr>
</tbody>
</table>

Source: Research data, 2015.

Table 6 illustrates the first stage of the test with a significant (0.000) relationship between the predictor variable (entrepreneurial orientation) and the criterion variable (organizational survivability). The model carries an R² value of 0.383 and an adjusted R² value of 0.379. The model establishes a significant relationship between entrepreneurial orientation and organizational survivability.

Table 7 Regressing the mediator (human capital management) on the independent variable (entrepreneurial orientation)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>(Constant)</td>
<td>2.521</td>
<td>.356</td>
<td>7.091</td>
</tr>
<tr>
<td></td>
<td>Entrepreneur</td>
<td>.337</td>
<td>.088</td>
<td>.306</td>
</tr>
</tbody>
</table>

Source: Research Data, 2015

Table 7 illustrates the second stage of the test with a significant (0.000) relationship between the predictor variable (entrepreneurial orientation) and the mediator variable (human capital management). The model carries an R² value of 0.94 and an adjusted R² value of 0.87. The model emphasizes the significant relationship between entrepreneurial orientation and organizational survivability.
Table 8 Regressing the dependent variable (organizational survivability) on the independent variable (entrepreneurial orientation) and the mediator (Human capital management).

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>3 (Constant)</td>
<td>.628</td>
<td>.262</td>
</tr>
<tr>
<td>Entrepreneur</td>
<td>.477</td>
<td>.058</td>
</tr>
<tr>
<td>Capital</td>
<td>.355</td>
<td>.053</td>
</tr>
</tbody>
</table>

Source: Research data, 2015

Table 8 illustrates the third and final stage of the test, with a significant relationship in both instances (entrepreneurial orientation and organizational survivability, sig: 0.000; human capital management and organizational survivability, sig: 0.000). Model three illustrates the partial mediating role of human capital management based on a comparison of the strength of relationship between the predictor variable (entrepreneurial orientation) and criterion variable (organizational survivability) in model one (1) and three (3). Therefore based on the results of the analysis we restate that: Human capital management partially but significantly mediates the relationship between entrepreneurial orientation and organizational survivability.

4. Discussion of Findings

The study empirically investigates the relationship between entrepreneurial orientation and organizational survivability with emphasis on the mediating role of human capital management on the relationship. Four null hypotheses were postulated, three bivariate and one multivariate. The findings reveal strong and significant relationships in all instances thereby necessitating a rejection of all previously stated null hypothetical statements and an affirmation of significant relations based on the findings of the analysis. The implications of these findings are specifically discussed below:

5.1 Innovativeness and organizational Survivability

The findings reveal significant associations between innovativeness and organizational survivability; thus implying that banks which tend towards innovative activities such as creative ideas, service re-evaluation and the re-vitalization of existing systems or processes through enhanced technological inputs stand a better chance at surviving and staying ahead of change (Ekanem, 2001). Innovation gives the organization a flexible stance towards change, and allows for adjustments based on market demands and market changes and also market predictions. This is possibly so because innovation focuses on improving the status quo through a careful observation of trends and assumes in various instances the leadership of such trends.

4.2 Proactiveness and Organizational Survivability

Proactiveness and organizational survivability are also revealed by the findings to have significant associations; implying that banks which are not proactive in nature stand the risk of being tossed around by various change agents. To survive, the study finds that organizations should adopt certain proactive measures which depict leadership in their spheres. This can boldly be achieved through various research activities upon which the prediction of market trends or consumer preferences can be
made or estimated. Proactivity entails leadership, and successful leadership entails a larger share of the market, growth and profitability through the effective utilization of available resources, skills and information (Ekutu, 2009; Olotu, 2009).

4.3 Risk-taking and Organizational Survivability
The findings also revealed significant associations between risk-taking and organizational survivability; implying that banks which are open to calculated risk stand a better chance of reaping advantageously from recognized opportunities and maintaining or acquiring market leadership status. Emphasis is on “calculated risk” for recklessness and misguided decisions could spell doom for the organization just as laxity and indecisiveness would most definitely expose the organization to untold hardship and loss (Carson, 2001). Risk-taking facilitates the structures which are adept to usurping competitive advantages such as technology, skills and service delivery processes, and with the growing competition for existing markets, risk-taking is a vital ingredient for organizational survivability.

5.4 The Partially Mediating Role of Human Capital Management
The findings reveal that human capital management, although partially; significantly mediates the relationship between entrepreneurial orientation and organizational survivability. The effective management of employees within the organization is an important benchmark for the success and survival of any organization. Through pooled ideas, skills and experience, organizations can effectively sustain desirable operational standards, also by imbibing a culture for appropriate recruitment and selection, employee recognition, support and adequate compensation, the work environment is harmonized and various desirable behavioural outcomes such as citizenship, identification, commitment and loyalty are expressed (Jaja, 2003; Hatch, & Dyer, 2004).

5. Conclusions and Recommendations
Drawing from the results of this study, we conclude that entrepreneurial orientation is associated with organizational survival; a relationship which is further enhanced by the effective management of the human capital of the organization. In this light, organisations must imbibe the “entrepreneurial spirit” in the pursuit of corporate agenda; and in doing so, recognition must be accorded the people in the organisation as valued assets through whom every good results in the organisation is attained. Based on this the following, recommendations are here proffered:

i. That banks imbibe an attitude of openness to change through flexible service systems and service delivery processes
ii. That work patterns, systems and structures be made permeable enough to allow for the filtration of new ideas, improvement to existing product and service packages as well as enhanced technological outlays
iii. That creativity should be encouraged among staff through support systems which celebrate suggestions, inputs and quality contributions based on experience, skill or knowledge.
iv. That employees should be recognised and treated as the only resource with the potentials to expand or shrink output at will depending on state of mind.
References


What Precedes Flexible Role Orientation?

Lintang Ayuninggar, Universitas Sebelas Maret, Indonesia

The European Business and Management Conference 2015
Official Conference Proceedings

Abstract

Wild race of business nowadays enforces organization to form a troop of reliable employee. This is not the time to rely on employee with mediocre vision and point of view. Organization needs a team of powerful employees with flexible role orientation who see broader task as something within their range of responsibilities. Having less number of employees who perceived other task outside the given task as their scope of role is more favorable than having large number of employees who patronized with given job description.

This study investigates the notion precedes employee flexible role orientation on state owned bank employees in Surakarta, Indonesia. Job self-efficacy and role breadth self-efficacy significantly show their positive effect on flexible role orientation. However, role breadth self-efficacy shows stronger correlation to flexible role orientation than job self-efficacy.

Keywords: job self efficacy, role breadth self efficacy, and flexible role orientation
Introduction

Modern business today seems more like an arena of competition. As new company in the business born, old company needs to gain source of strength in order to survive the battle. Otherwise, markets will swift into the new company as young company comes with fresh ideas and strategies. Finally, the battle left only survivors and wiped sapless.

Human is believed as the motor of organization for they play important role in executing organizational operations. Hence, to have a troop of reliable employee is a powerful weapon to compete on the wild race of business. Further, organization cannot rely on conventional employee who hold on to given and habitual task. It needs individuals with broader concept about their responsibilities.

Previous research suggested that flexible role orientation of employee will enhance their individual performance (Parker, 2007) which surely leads to organizational performance. Further, Srikanth and Jomon (2013), see the importance of employee flexible role orientation as an entry to extra-role behavior which believed as another formula to great performance of organization. Therefore, employee flexible orientation is a precious recipe for every organization success.

As many research studied the contribution of flexible role orientation on performance (Parker, 2007) and its importance in answering today’s emphasis on customer service (Straub, 1993; Conrad, 2013), flexible role orientation emerges as a serene struck in organizational theory. However, research investigates the thing which precedes flexible role orientation still needs to be encouraged.

Literature Review and Hypotheses

Flexible Role Orientation

As role orientation is very personal, an employee may have different role orientation than the other. Parker, Wall, and Jackson (1997) define role orientation as a set of task which worker concerned as his/her responsibility. By so, employee can have narrow or broad role orientation depends on how he/she perceives various tasks as his/her scope of responsibility. Employee with flexible role orientation will have broader scope of tasks which he/she perceives as his/her duty.

In the same tone with flexible role orientation, Morrison and Phelps (1999) underline the importance of “taking charge behavior” in the workplace. It carries the form of extra-role behavior which is change-oriented and development intended. Instead of focusing on restricted “traditional” role orientation, employees not only need to develop strategic orientation, but also need to carry broader and proactive concept to their roles (Parker, Wall, and Jackson, 1997). By doing so, they will hold possession and responsibility toward their job without limited to the given job description. Further, they will realize how important to use their extended skills in achieving success on that broader concept of role. Employees with flexible role orientation will see task related to their job as “it’s my job” rather that “it’s not my job.”
**Job Self-Efficacy**

Bandura (1986) defines job self-efficacy as:

“People’s judgment of their capabilities to organize and execute courses of action required to attain designated types of performances.”

People with high job self-efficacy have a strong belief that they have enough sources to perform certain task. Thus, they believe that they will be able to carry the job and achieve success. On the other side, people with lower job self-efficacy will see the assigned job as a stressor as they feel unsure about their capability in carrying it.

Experts see job self-efficacy as a positive notion that they suggest it leads to positive behavior in a workplace. Employee with high job self-efficacy will be motivated (Ayupp and Kong, 2010), have good performance (Barling and Beattie, 1983), and perform proactive behavior (Speier and Frese, 1997). Kanfer et al (1994) revealed how job self-efficacy explains that despite of the same knowledge and ability workers have to execute a task, they have different attitude toward the task. Further, self efficacy has three main components: (1) magnitude, dealing with how far an employee sure that he/she is able to perform a certain task; (2) strength, shows an employee belief that he/she is able to do the job further into a certain level; and (3) generality, refers to how far self efficacy might develop into certain task or situation (Kanger and Kanfer, 1991). Hence, it is predicted that job self-efficacy will positively related to flexible role orientation.

**H1: Job self-efficacy will positively related to flexible role orientation**

**Role Breadth Self-Efficacy**

Parker (1998) defines role breadth self-efficacy as how far an employee feels confident in carrying broader role beyond the traditional or given boundary. It is a type of self efficacy which is in line with the notion of performing broader proactive roles. Role breadth self-efficacy believed as an important construct as it leads to positive individual outcome at work (Ohly and Fritz, 2007; Parker, 2000). As the same as job self-efficacy which describe the confidence of employees in carrying certain set of task, role breadth self efficacy emphasis on employees confidence in carrying broader set of task regardless whether they are allowed or not in executing it (Bandura, 1994; Salanova et al, 2002; Galperin, 2005).

Role breadth self-efficacy originally formed in the relation to flexible performance requirement in the organization (Parker, 2000). Role breadth self-efficacy refers to employees’ belief and confidence about their abilities and capabilities in handling a set of proactive, interpersonal, and integrative activity which far extended from their traditional main task which has been formally assigned to them (Parker, Williams and Turner, 2006).

Role breadth self-efficacy and flexible role orientation capture similar components; proactive motivational states which leads to broader to perceived task domain; involve cognitive; and learning process to broader perceived task responsibilities (Parker, 2000). It is predicted that role breadth self-efficacy will positively related to flexible role orientation.

**H2: Role breadth self-efficacy will positively related to flexible role orientation.**
Sample and Procedure

Data collected from state owned banks employees operate in Surakarta, Indonesia. There were five banks in total. First, meeting with each human resource department officer of the bank was held to give information about the study, its goal, and its procedure. Then, a set of questionnaire was delivered to the banks to be checked by the human resource department for approval. Finally, the data collection was conducted mannerly. From the 300 questionnaires sent, 246 were returned and 244 were usable, representing a response rate of 82%.

Sample (N = 244) consisted of state owned bank employee. The sample includes 128 males (52.5%) and 116 females (47.5%). The mean age of the respondents was 36.84 years (SD = 8.711) and the mean tenure was 12.94 years (SD = 8.320). All of the respondents are full time employee handling saving, loan, and administrative work.

Measures

Job-self efficacy ($\alpha = 0.840$) was assessed using three items from Wang and Netemeyer (2002). Respondent were asked to indicate their confidence in performing their given task. The items include “I feel capable in doing my job well”. The response scale ranged from 1 = very untrue to 5 = very true.

Role breadth self-efficacy ($\alpha = 0.871$) was measured using seven items adopted from Parker (1998). Employees were asked to rate how sure they are in performing certain tasks which describe broader task than their job description. Sample items include “How sure are you to visit people from another department to suggest a different way in doing task” and “How sure are you to in representing your working area on a meeting with senior manager”. The response scale ranged from 1 = very unsure to 5 = very sure.

Flexible role orientation ($\alpha = 0.838$) was measured using three items from Parker et.al. (1997). Respondents were asked to indicate to what extent they perceive problems as their concern rather than other’s concern. Sample item includes “It is my job to generate new idea and try it”. The response scale ranged from 1 = very untrue to 5 = very true.

Control Variables

Sum up from sources, gender and tenure are constructs which predicted to play role in explaining the relation of job self-efficacy, role breadth self-efficacy, and flexible role orientation.

Data Analysis

CFA data analyses conducted using structural equation modeling (SEM) methods and executed by AMOS. Results showed a good fit on the model. Significant was reached with $C_{min} = 130.359$; $DF = 52$; $C_{min}/DF = 2.507$; $p = 0.000$. The root-mean-square-error of approximation (RMSEA) showing the number of 0.079; below the cutoff value recommended by experts. The other fit indices showed the number of $GFI = 0.926$; $TLI = 0.923$; $NFI = 0.919$; $CFI = 0.949$ suggested a good fit of the model.
Results

As predicted, results show that both job self-efficacy and role breadth self-efficacy are positively related to flexible role orientation. Role breadth self-efficacy shows (Table 1 and 2) B = 0.607; p < 0.01 and job self-efficacy shows B = 0.279; p < 0.01. Results also shown that role breadth self-efficacy has stronger correlation than job self-efficacy to flexible role orientation (Table 3). Therefore, hypotheses 1 and 2 are supported.

To test the influence of controls variable, hierarchical regression was applied. The interaction of gender and tenure to the variables were done separately before take them into the calculation. Results suggested (table 1 and 2) that there are no influence of gender and tenure on the relation of job self-efficacy and role breadth self-efficacy to flexible role orientation.

<p>| Flexible Role |<br />
| Orientation |</p>
<table>
<thead>
<tr>
<th>β</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-0.297</td>
</tr>
<tr>
<td>Tenure</td>
<td>-0.279</td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
</tr>
<tr>
<td>Job Self Efficacy</td>
<td>0.279**</td>
</tr>
</tbody>
</table>

R square 0.038
N = 244
Level of significance: **p<0.01; *p<0.05

Conclusions

This study investigates employees’ efficacy on their flexible role orientation. As predicted, job self-efficacy and role breadth self-efficacy are positively related to flexible role orientation. However, role breadth self-efficacy has stronger correlation to flexible role orientation than job self-efficacy. The result supports a study by Parker (2000) which saying that role breadth self-efficacy share common features with flexible role orientation even though they are completely different construct.

Further on this study, the prediction about effect of tenure and gender on the relationship between employee efficacy and flexible role orientation found no support. As the same as the relationship of job self-efficacy and flexible role orientation, the relationship of role breadth self efficacy and flexible role orientation is not affected by gender and tenure.
Table 2. Hierarchical Regression Analysis- Role Breadth Self Efficacy

<table>
<thead>
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<th>Flexible Role Orientation</th>
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<tbody>
<tr>
<td></td>
<td>β</td>
</tr>
<tr>
<td>Step 1</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>0.012</td>
</tr>
<tr>
<td>Tenure</td>
<td>0.272</td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
</tr>
<tr>
<td>Role Breadth Self Efficacy</td>
<td>0.607**</td>
</tr>
</tbody>
</table>

R square 0.262
N = 244
Level of significance: **p<0.01; *p<0.05

Table 3. Means, Standard Deviations, and Correlations

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gender</td>
<td>1.52</td>
<td>0.5</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Tenure</td>
<td>12.94</td>
<td>8.32</td>
<td>0.150*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. JSE</td>
<td>4.08</td>
<td>0.577</td>
<td>0.115</td>
<td>0.067</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. RBSE</td>
<td>3.48</td>
<td>0.696</td>
<td>0.162*</td>
<td>(0.008)</td>
<td>0.188**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>5. FRO</td>
<td>3.65</td>
<td>0.825</td>
<td>0.026</td>
<td>(0.139)*</td>
<td>0.195**</td>
<td>0.512**</td>
<td>1</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed)
* Correlation is significant at the 0.05 level (2-tailed)

This result contributes to organizational practices theory. As the importance of flexible role orientation to organizational outcome cannot be neglected, organization needs to find formula to enhance employees’ flexible role orientation. Job self-efficacy and role breadth self-efficacy empirically show their contribution in forming flexible role orientation. Hence, organization needs to improve their employees’ job self-efficacy and role breadth self-efficacy by giving support facilities related to those precursors of flexible role orientation.
References


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Antecedents of Top Management Succession and Successor Origins: Evidences from an Emerging Market

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Abstract
This study investigates the factors affecting a CEO successor’s origins in an emerging market. Pre-succession performance, ownership structure, and incumbent CEO change type variables are used as determinants of successor origins choice. We found that when poor firm performance leads to CEO change, the firms are more inclined to appoint outsiders as successors. However, firms prefer more inside successions after a voluntary CEO change. We found that international and local business group companies are using intergroup transfer excessively as a mode of new CEO appointment. These firms are benefiting from various advantages of both outside and inside succession at the same time by appointing group affiliated executives to CEO positions.
Introduction

Several research results show that the turnover rate for top executives is increasing, and that managing top executives (especially chief executive officers [CEO]), the succession process, and selecting a successor are becoming more crucial for firm success and survival (Hutzschenreuter, Kleindienst, & Creger, 2012; Shen & Cannella, 2002, 2003; Zhang & Rajagopalan, 2004, 2010). As CEO succession is a critical event for all types of companies, we have also witnessed an increasing academic interest in this subject over the past few decades. Driven by the work of Grusky (1960; 1961) in the 1960s, top executive succession has become a topic of interest across a variety of scientific disciplines such as strategy, organization, finance, and leadership (Giambatista, Rowe, & Riaz, 2005; Kesner & Sebora, 1994). This study’s aim is to focus on antecedents of CEO successors’ origins. Prior research has explicitly discussed the theoretical benefits of both inside and outside successions (Zhang & Rajagopalan, 2010). Our main objective is to determine under which circumstances firms prefer an inside successor to an outside rival in an emerging market. CEO succession research is an emerging field in Turkey, and a very limited number of empirical studies have been conducted in this area. CEO succession was examined as a factor in organizational performance, finding an inverse relationship between CEO turnover rate and firm performance (Doğan ve Ağca, 2013; Durukan, Özkan ve Dalkılıç, 2012).

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1 Earlier version of this paper was presented at EBES conference in 2015. We are grateful to the two anonymous reviewers and participants of the conference for their helpful comments.
**Theory and Hypothesis**

An impressive number of studies examined the effects of CEO succession as well as various successor characteristics on firm performance (Datta & Rajagopalan, 1998; Karaveli, 2007; Shen & Cannella, 2002; 2003; Virany et al., 1992; Zhang & Rajagopalan, 2004) but their results remained mixed. It is believed that these mixed results are found because the outcomes of CEO succession are dependent on some specific organizational and social context, and the conditions in which they occur (Minichilli et al., 2014). The purpose of this study is to analyze the context and the conditions that influence the choice of the successor’s origins. We aim to contribute to the literature on leadership succession by examining the antecedents of successors’ origins in a different social context (Chung & Luo, 2013). Many researchers accentuate the impact of social context on CEO succession and suggest that the alignment between the reasons for CEO replacement, social context, and successor origins are essential in order to achieve positive performance consequences after a leadership change (Chung & Luo, 2013; Day & Lord, 1988; Giambatista, Rowe, & Riaz, 2005; Kesner & Sebora, 1994). However, most of the studies in this area are conducted in the developed country context, and developing country experiences remain limited ( Claessens & Djankov, 1999; Kato & Long, 2000; Peng, Buck, & Filatotchev, 2003). We think that this descriptive study conducted in an emerging market, namely Turkey, will contribute to the field by analyzing the antecedent of successor origins and comparing inside succession with outside succession in a different social context that brings together organizations working with different institutional logics such as families, business groups, and international companies.

The origin of a CEO successor has important organizational implications, and one of the important motivations for our study was to understand the circumstances under which a firm chooses a new CEO with a different origin. There are options for selecting a CEO successor including selection of an insider among internal candidates and a comprehensive search of external candidates. Extant literature provides valuable insights into the antecedents of inside (intrafirm) versus outside-firm CEO succession (Finkelstein & Hambrick, 1996; Kesner & Sebora, 1994). However, when CEOs are chosen from the outside, some come from within the hiring firms' industries, whereas others are chosen from outside their industries. Very little is known about the antecedents of these choices, because typically the majority of the prior research has not distinguished between intra-industry and outside-industry successors (Datta & Rajagopalan, 1998; Jalal & Prezas, 2012). In general, promotion from within is most commonly used in the succession method to fill the vacated CEO position (Ocasio, 1999). Insider successors have more company-specific and industry-specific knowledge, will have a better understanding of the company's strategic requirements and relationship networks, and the company's board will recognize the candidate and will have relevant information about the competence and prior performance of that candidate (Harris & Helfat, 1997; Zajac, 1990). It is assumed that insiders will have shorter learning curves, will adapt quickly to new tasks, and boards of directors of the company may trust the insider managers more easily (Cannella & Shen, 2001). Furthermore, promotion from within will have advantages, for example insider successor cost will be relatively lower compared to that for the outsider candidates. It is expected that morale, motivation, and commitment within the company will be strengthened with internal promotions, and the company's capacity to attract and retain qualified executives will be enhanced (Friedman & Saul, 1991). Of these, the selection and crowning of an heir apparent or internal candidate is the most formal.
and traditional succession process. However, research shows that the origin of the CEO successor is dependent on several factors (Pitcher, Chreim, & Kisfalv, 2000; Zhang & Rajagopalan, 2003). Some of these factors are firm performance, firm growth level, scale, age, or the company's current level of compliance with the standards in the industry (Kesner & Seborra, 1994). The most obvious potential predictor of whether a new CEO will come from the outside is the performance of the organization in the period before succession. Of the several studies examining this issue, they found that good firm performance tends to lead to an insider successor, while poor firm performance tends to discourage it (Boeker & Goodstein, 1993; Cannella & Lubatkin, 1993; Zhang & Rajagopalan, 2004).

H1: Pre-succession firm performance will be positively related to the likelihood of insider succession.

However, studies on the impact of firm pre-succession performance on CEO succession have also investigated the link between the type of CEO successor and the reason for CEO succession. For example, some researchers (Puffer & Weintrop, 1995) argue that neither corporate performance nor the composition of the board explains successor origin when that succession is caused by the voluntary retirement of the incumbent CEO. Nevertheless, they conclude that when the incumbent CEO is forced to leave, past performance is likely to be the key determinant of the choice of his or her successor. In this perspective, we propose the following:

H2: The probability of appointment of an insider successor is higher when the succession is caused by voluntary reasons.

Many other organizational characteristics also affect top executive succession. Some of these characteristics are used and analyzed as variables in studies. However, variables related to ownership structure of the companies have been scantily studied. In particular, family ownership, foreign ownership, and business group structure are among those organizational characteristics (Finkelstein, Hambrick, & Cannella, 2009). Emerging economies are gathering together companies functioning with different institutional logics, and are providing researchers with a more heterogeneous social context and relationships. This is why they provide researchers a more interesting setting to investigate the characteristics of CEO successors (Dacin, Ventresca, & Beal, 1999; Thornton & Ocasio, 2008). Chung and Luo (2013) propose that in developing countries where market dynamics are weak, transaction costs are high and information asymmetry is acute. Outsider CEO successors have powerful connections and legitimacy conferred by stakeholders, which plays a crucial role in helping firms access resources and lower transaction costs, bringing fresh knowledge and managerial perspectives and thus facilitating firm performance. Successors appointed from outside the company are also considered to enhance the firm’s capital, as they are selected from a larger pool of candidates (Bennedsen et al., 2007; Chung & Luo, 2013).

Several studies also reveal that family ownership, especially in developing countries, is an important factor affecting the company's management structure and performance (Carney, 2005; Chrisman, Chua, & Zahra, 2003; Çolpan, 2010; Habbershon & Williams, 1999, Habbershon et al. 2003). Finkelstein, Hambrick, and Cannella (2009) suggest that family ownership is not only an issue to consider for developing countries, but research conducted in the US on the impact of family control has found that it is underestimated. Our sample also provides us a rich opportunity for studying family business groups. Several studies reveal that in Turkey, the family business
group is a dominant form of business organizing, and in particular the business group (holding) affiliated companies are directly or indirectly owned by family members (Buğra, 1994; Gökşen & Üsdiken, 2001; Kula, 2005; Demirağ & Serter, 2003; Yamak & Üsdiken, 2006; Yurtoğlu, 2003). In our sample as in the other developing countries where family business groups (Guillen, 2000; Khanna & Palepu, 2000; Khanna ve Yafeh, 2007) and international companies are the dominant structural form, we assume that there is a high probability that outsiders and CEO successors are coming from (local or foreign) group affiliated companies.

H3: The probability of the appointment of outsider successors coming from (local or foreign) group-affiliated companies is higher in family business groups.
Methods

Context, sample, and data sources

We test the above hypotheses in the context of Turkey for the years 2010 and 2011. Our sample comprises all publicly-listed firms on the Istanbul Stock Exchange (TSE). In total, there are 523 firm-year observations pertaining to 258 different firms. Our research design includes firms that experienced CEO succession and those that did not. It also includes, for firms experiencing leadership succession, information on both succession and non-succession years. Giambatista et al. (2005) point out that in succession research, many studies examine only succession events but do not address how different types of successors compare with non-succession in their performance impact.

We collected information on annual firm performance and other firm characteristics from the KAP (Public Disclosure Platform of Turkey) electronic database, the most comprehensive database for listed companies in Turkey, and from individual companies’ financial reports. For CEO succession and the origin of successors, we adopted a multisource strategy to search all relevant information for succession cases. We first identified CEO (or general manager) changes from the list of names provided by the KAP database. There were 81 cases of succession during our observation period. Of these changes, 40 occurred in 2010 whereas 41 took place in 2011. In 6 cases, more than two managerial changes occurred during the analyzed years. We then searched various databases and firms’ financial reports and other documents to locate background information on both the incumbent CEO and the origin of the successor CEO.

Pre-succession performance: We used return on assets (ROA) as the independent variable for firm performance because ROA is a well-understood and widely used accounting measure of operational performance (Shen & Cannella, 2002; Zajac, 1990). We did not use market valuation, which is often subject to forces beyond management’s control, since our study attempts to understand the impact of succession on a firm’s performance.

CEO succession reason: The reasons for CEO succession are classified in this variable. The reasons for the changes were primarily identified with the help of the firms’ public disclosures and financial press news. Planned retirement and voluntary departure of the incumbent CEO are coded as “natural departure,” whereas the refusal to renew the contract by the employer, replacement of the incumbent CEO following a “policy disagreement” or “difference in opinion or some equivalent reason” are classified as dismissals (forced departures). We also differentiated cases where the CEOs were appointed to a new position within the firm or were affiliated with business groups and thus needed to be replaced by a successor.

Ownership Structure: We controlled for ownership and governance through the percentage of shares owned by the controlling family, foreign institutional companies/investors, and business group ownership. The term, “controlling family” refers to the family with the largest shareholdings in a firm’s ownership structure. Family members own company shares either directly or through other public and private firms that are de facto under their control. We consider the pyramid structure in ownership to calculate family shareholding by using the methodology developed by...
La Porta et al. (1999).

**Successor origins:** The origin of a new CEO was classified into two basic categories: inside and outside firm successor. Consistent with recent succession studies, inside succession was defined as one in which an executive with firm tenure of at least two years had been promoted to the CEO position (Cannella & Lubatkin, 1993; Harris & Helfat, 1997; Ocasio, 1999; Zhang & Rajagopalan, 2003). Outside firm succession was classified first into two main categories: business group affiliated and non-business group affiliated outsiders. Next, we checked whether the outsiders are examples of intra-industry and outside-industry succession. Intra-industry succession was defined as one in which the successor CEO had firm tenure of less than two years but had industry tenure of at least two years in the same industry in which the hiring firm was categorized. Outside-industry succession referred to succession in which the successor CEO had industry tenure of less than two years in the same industry. In order to classify the industry origin of a new CEO, we followed the procedure described in Harris and Helfat (1997) as proposed by Zhang and Rajagopalan (2003).

**Control variables:** In view of the prior CEO succession literature, we controlled for industry and firm size. Previous research has shown that CEO succession and CEO successor origins have differing effects depending on an organization’s size. Firm size was measured by the logged values of annual firm sales. Industry is a dummy variable that is equal to 1 for the service sector and to 0 otherwise.
Data Analysis and Results

Table 1 reports descriptive statistics of our sample and variables. To test our hypotheses, we used logistic regression analyses. We used this methodology to estimate simultaneous logistic regression models with "pairwise" comparisons of firms’ pre-succession performance and CEO successors’ origins (Parrino, 1997). Our model included CEO successor origin as a dependent variable and pre-succession performance, ownership structure, and CEO change reasons as independent variables. Table 1 presents descriptive statistics. Table 2 and Table 3 present the multinomial logistics estimates for our model.

Table 1. Descriptive Statistics

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<th></th>
<th>Mean (percent/standard deviation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEO succession</td>
<td>77 (14.8%)</td>
</tr>
<tr>
<td>CEO change reason</td>
<td></td>
</tr>
<tr>
<td>- Voluntary departure</td>
<td>31 (40.3%)</td>
</tr>
<tr>
<td>- Retirement</td>
<td>15 (19.5%)</td>
</tr>
<tr>
<td>- Dismissal</td>
<td>1 (1.3%)</td>
</tr>
<tr>
<td>- Other assignment</td>
<td>28 (36.4%)</td>
</tr>
<tr>
<td>- Organizational restructuring</td>
<td>2 (2.6%)</td>
</tr>
<tr>
<td>CEO successors’ origin</td>
<td></td>
</tr>
<tr>
<td>- Insiders</td>
<td>36 (46.8%)</td>
</tr>
<tr>
<td>- Outsiders - Intragroup</td>
<td>18 (23.4%)</td>
</tr>
<tr>
<td>- Outsiders - Intra-industry</td>
<td>12 (15.6%)</td>
</tr>
<tr>
<td>- Outsiders - Different Industry</td>
<td>11 (14.3%)</td>
</tr>
<tr>
<td>ROA</td>
<td>0.03191 (.1806)</td>
</tr>
<tr>
<td>Size (log of total sales)</td>
<td>18.1938 (2.31799)</td>
</tr>
<tr>
<td>Sector (dummy for service)</td>
<td>0.4203 (0.49409)</td>
</tr>
<tr>
<td>Ownership structure</td>
<td></td>
</tr>
<tr>
<td>- Business groups shares</td>
<td>57.31 (23.089)</td>
</tr>
<tr>
<td>- Family shares</td>
<td>63.50 (22.15)</td>
</tr>
<tr>
<td>- Family business group shares</td>
<td>40.25 (28.56)</td>
</tr>
<tr>
<td>- Foreign companies’ shares</td>
<td>12.53 (26.75)</td>
</tr>
</tbody>
</table>

Our model in Table 2 was statistically significant (chi-square = 53.081; p < 0.05). From the results of the multinomial logistic regression analysis shown in this table, we found that insider successor choice of the companies is affected by pre-succession performance and voluntary departures. As hypothesized, we found that firms are more tented to replace the incumbent CEO with an insider when the firms performed well financially. We observe that the reason and type of CEO change affects the choice of an insider successor. When the incumbent CEO leaves the company voluntarily, the probability of appointing an insider replacement increases. However, companies’ choices of outsiders are strongly and inversely related by their size and industry, and are positively related to pre-succession performance and planned type of voluntary CEO change. As proposed in our hypothesis, we found that in family business groups, the probability of appointment of outsider successors from group-affiliated companies is higher.
Table 2. Results of the Multinomial Logistic Regression: Determinants of Choice of Successors’ Origins*

<table>
<thead>
<tr>
<th>Successors origins a</th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>P(sig)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Insiders</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-succession</td>
<td>10.186</td>
<td>5.854</td>
<td>3.027</td>
<td>1</td>
<td>.082</td>
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<tr>
<td>performance</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Voluntary change</td>
<td>17.511</td>
<td>3567.91</td>
<td>.000</td>
<td>1</td>
<td>.043</td>
</tr>
<tr>
<td>2-Outsider-inter group company transfer</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>.291</td>
<td>.300</td>
<td>.940</td>
<td>1</td>
<td>.323</td>
</tr>
<tr>
<td>Industry</td>
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<td>1.424</td>
<td>1.244</td>
<td>1</td>
<td>.232</td>
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<tr>
<td>Retirement</td>
<td>17.377</td>
<td>1.656</td>
<td>110.06</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>Ownership (FBG)</td>
<td>.021</td>
<td>.030</td>
<td>.490</td>
<td>1</td>
<td>.484</td>
</tr>
<tr>
<td>3-Outsider-intra-industry</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-succession</td>
<td>6.525</td>
<td>5.163</td>
<td>1.597</td>
<td>1</td>
<td>.204</td>
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<tr>
<td>performance</td>
<td>- .528</td>
<td>.419</td>
<td>1.587</td>
<td>1</td>
<td>.204</td>
</tr>
<tr>
<td>Size</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

N = 521
Model chi-square = 53.081; p < 0.05,
–2 log likelihood = 147.247, P
Pseudo R2 (Nagelkerke) = .651.

*Final model included only significant variables at the .10 level)

a The reference category is 4 (succession by an outsider from a different industry)

Conclusion
A number of studies have been conducted on antecedent CEO succession and choice of successor. We believe that CEO succession decisions and events depend on the specific organizational and country context in which they occur; thus, there is still a need to conduct analysis in different research settings.

This paper analyses the determinants of choice of CEO successor in Turkey. The three hypothesized determinants of successor choice are pre-succession performance, ownership structure, and incumbent CEO change type. The main contribution of our paper is to bring new insight from an emerging market to the investigated variables. We found that when poor firm performance leads to CEO change, the firms are more inclined to appoint outsiders as successors. However, firms prefer more inside successions after a voluntary CEO change. These results are consistent with our theoretical arguments and previous research findings. It is also worth to note that 53 percent of the firms favor outside successors to replace recurrent CEOs. One of the important contributions of this paper thus is to analyze in depth the characteristics of these outside CEO successors. In this respect, outsiders are classified into three subgroups: inter group companies’ transfer, intra industry transfers and different industry transfer. We found that international and local business group companies are using intergroup transfer excessively as a mode of new CEO appointment. We found that 44 percent of the outsider CEOs are coming from group affiliated companies. This intergroup top executive transfer can be classified as a related outside succession. We know that family owned and managed business groups and international companies are very common organizational forms in Turkey. We can say that firms are benefiting from various advantages of both outside and inside succession at the same time by appointing group affiliated executives to CEO positions.
In conclusion, we would like to acknowledge some limitations of our study. First, like most research on CEO succession, our study relied on archival data rather than on direct observations of succession. Second, this study classified successors based only on their origins. A finer-grained classification of outside would provide further explanation of the choice of a successor. Some background characteristics of CEOs, such as previous experience, age, education and tenures, could contribute to an understanding of succession events. Finally, we used a limited sample of large and listed firms. This sample and sample size may limit the generalizability of our findings to other contexts, in particular, to the emerging market context. Future research needs to replicate and extend our model in other organizational contexts with a larger sample size.
References


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Performance Consequences of CEO Succession: The Impacts of CEO Successor Origins and Succession Context

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Official Conference Proceedings

Abstract
This paper examines the performance consequences of CEO succession in an emerging market. The study found that outside succession is positively related to post-succession performance in listed companies in Turkey. Further, post-succession firm performance also differs between unrelated and related outside succession. These findings thus contribute to the existing literature on CEO succession by highlighting the value of outside CEOs’ fresh perspectives, new and diverse skills and initiative for change.
Introduction
Chief Executive Officer (CEO) succession is perhaps one of the most important changes in the life of any firm because of the substantive importance of the CEO influence on firm performance and survival (Finkelstein & Hambrick, 1996; Kesner & Sebora, 1994). There are multiple options and related processes for selecting a successor CEO, including selection and crowning of an “heir apparent”, a “horse race” among internal candidates and a comprehensive search of external candidates (Finkelstein & Hambrick, 1996; Friedman & Olk, 1995).

Prior research has explicitly discussed the theoretical benefits of each of these CEO selection methods but has presented contradictory results about their effectiveness (Karaevli, 2007; Datta & Rajagopalan, 1998; Shen & Canella, 2002; 2003; Virany et al., 1992; Zhang & Rajagopalan, 2004). These results, however, raise another question: what are the main organizational contingencies that explain the variance in performance effects of different CEO succession types?

In summary, existing work on the effects of CEO successions on organizational performance contains both descriptive and normative gaps. In order to address these significant gaps, this study examines the relationship between successor origin and the performance impact of CEO succession, with a particular focus on how this relationship is influenced by social context in emerging markets. The study was structured around two main research questions: how do CEO successor origins influence post-succession firm performance? How do these performance effects vary with key organizational contingencies specific to emerging markets? In addressing these research questions, we divided CEO successor origins into three categories: (1) inside succession, in which the new CEO comes from within the firm in question; (2) related outside succession, in which the new CEO comes from within the same business group of the firm in question; (3) unrelated outside succession, in which the firm hires someone new to the firm, so the new CEO comes from outside the firm.

Theory and Hypotheses
The upper echelon perspective proposes that top executives affect firm performance because these leaders have significant influence over company strategies (Hambrick & Mason, 1984). Thus, a succession in leadership will be likely to influence firm performance through changes in leadership skills, experience, adaptability to change and accessibility of network resources (Kesner & Sebora, 1994; Giambatista et al., 2005; Thornton & Ocasio, 1999; Cao et al. 2006).

Despite the proposed persuasive mechanisms linking CEO succession to firm performance in the related literature, there is little consensus on the performance impact of CEO succession or on the influence of CEO successors’ origins (Karaevli, 2007). For example, successors promoted from within the organization are argued to have better access to internal network resources that are critical for the leadership transition process (Cao et al., 2006). Insiders possess more firm-specific knowledge, (Zhang & Rajagopalan, 2004; 2010) and they are less likely to be seen as contenders for power and thus pose less of a threat to existing alliances (Shen & Cannella, 2002). Several researchers have found that inside successions could lead to better post-succession firm performance than other types of successions (Zhang & Rajagopalan, 2004; Cannella & Lubatkin, 1993; Zajac, 1990; Shen & Cannella, 2003). However, successors appointed from outside the firm are also considered to enhance the firm’s
human capital as they are selected from a larger pool of candidates and contribute positively to firm performance (Bennedsen et al., 2007). These leaders may be more able to adjust to change in turbulent environments (Tushman & Rosenkopf, 1996; Haveman, Russo & Meyer, 2001). Studies of executive turnover in China and Eastern Europe have suggested that, compared with developed markets, differences in the performance effects of CEO succession may be related to the different contexts presented by emerging markets (Peng, Buck & Filatotchev, 2003). Several researchers have argued that the social context of the country may provide important contingencies determining whether, and how, CEO change affects performance (Chung & Luo, 2013; Kesner & Sebora, 1994; Giambatista et al., 2005). A study by Bennedsen et al. (2007) found that outside successors contributed to firm profitability more than family successors, especially in fast-growing industries. Specific to emerging economies, Claessens and Djankov (1999) found that bringing in outside successors facilitated firm performance in the Czech Republic. Chung and Luo (2013) obtained the same results in Taiwanese listed firms. They found that leadership succession by outsiders is associated with higher subsequent firm profitability than successions by family members and insiders.

In line with the research results conducted in emerging markets, we propose the following hypothesis.

Hypothesis 1: In Turkey as an emerging market, outside CEO succession will be positively associated with post-succession performance.

Many organizational characteristics affecting top executive succession are analyzed in different studies; however, variables related to the ownership structure of the companies have been the subject of very little study. In particular, family ownership, foreign ownership and business group structure are among those organizational characteristics (Finkelstein, Hambrick & Cannella, 2009). We know that emerging economies are gathering together companies that function with different institutional logics providing researchers with more heterogeneous social context and relationships with which to investigate characteristics of CEO successors (Thornton & Ocasio, 2008; Dacin, Ventresca & Beal, 1999). Chung and Luo (2013) propose that in developing countries where market dynamics are weak, transaction costs are high and information asymmetry is acute, outsider CEO successors who have powerful connections and legitimacy conferred by stakeholders play a crucial role in helping firms access resources and lower transaction costs. They bring fresh knowledge and managerial perspectives into the organization thereby improve the performance. Successors appointed from outside the company are also considered to enhance the firm’s capital, as they are selected from a larger pool of candidates (Bennedsen et al. 2007; Chung & Luo, 2013). Several studies also reveal that family ownership, especially in developing countries, is an important factor affecting the company’s management structure and performance (Carney, 2005; Chrisman, Chua & Zahra, 2003; Habbershon & Williams, 1999; Habbershon et al. 2003; Çolpan, 2010). Finkelstein, Hambrick and Cannella (2009) suggest that family ownership is not only an issue to consider for developing countries, but that the impact of family control is also underestimated in research conducted in the US. Another important structural characteristic of emerging market firms is business groups. Defined as a collection of “legally independent firms, operating in unrelated business activities, which are bound together by formal and informal ties” (Khanna & Yafeh, 2007, p. 331), business groups were also shown to differ in regards to ownership, authority structure, diversification and size. Yet, as previous studies have indicated, family-controlled,
centrally directed and diversified business groups constitute most of the largest economic units in Turkey (Buğra, 1994; Gökşen & Üsdiken, 2001; Khanna & Yafeh, 2007; Yurtoğlu, 2003; Kula, 2005; Yamak & Üsdiken, 2006; Demirag & Serter, 2003). As such, the Turkish context as an emerging and late industrialized country provides a rich opportunity for studying family business groups. With our sample from Turkey, as with the other developing country where family business groups and international companies are the dominant structural form (Guillen, 2000; Khanna & Palepu, 2000; Khanna & Yafeh, 2007), we assume that there is a high probability that outside CEO successors come from local or foreign group-affiliated companies. We classified these successors as related outsiders and proposed that:

Hypothesis 2: Unrelated outside CEO succession will be positively associated with post-succession compared to related outside succession.

It has been argued that outside successors are usually preferred when the firms expect and plan change due to performance decline (Cannella & Lubatkin, 1993; Zhang & Rajagopalan, 2010). Relative to inside CEO successors, it is expected that outside CEO successors are better positioned to cause performance turnarounds, as they can contribute to the performance of the firm with their fresh perspectives and new skills and are more willing to question existing practices and initiate major changes (Kesner & Sebora, 1994; Zhang & Rajagopalan, 2004). Several studies have also proposed that outside CEO successors do not have emotional commitments to, or vested interests in, the firm’s status quo and their outsider status and experience, enabling them to search for more strategic options within and outside the firm more broadly (Zhang & Rajagopalan, 2010).

Hypothesis 3: The positive relationship between outsider CEO successors and post-succession firm performance will be stronger at lower levels of pre-succession firm performance.

Methods
Sample selection
We test the above hypotheses in the context of Turkey for the years 2010 and 2011. CEO succession research is a newly emerging field of study in Turkey and a limited number of empirical studies has been conducted in this area. CEO succession was examined as a factor that might have an impact on organizational performance and there was found an inverse relationship between CEO turnover and firm performance (Doğan & Ağa, 2013; Durukan, Özkan & Dalkılıç, 2012). Our sample comprises all publicly listed firms on the Istanbul Stock Exchange (TSE). In total, there are 523 firm-year observations, pertaining to 258 unique firms. Our research design includes only firms that experienced CEO succession.

We collected annual firm performance and other firm characteristics from the KAP (Public Disclosure Platform of Turkey) electronic database, the most comprehensive database for listed companies in Turkey, and from individual companies’ financial reports. For CEO succession and the origin of successors, we adopted a multi-source strategy to search all relevant information for cases of succession. Data were collected for the years before and after successes in order to provide better understanding of causality. We first identified CEO (or general manager) changes from the list of names provided by the KAP database. After data with missing information were excluded, our final sample included 76 cases of succession during our observation
period. Of these changes, 37 occurred in 2010 and 39 took place in 2011. In six cases, more than two managerial changes occurred in the observation period. We then searched various databases and firms' financial reports and other documents to locate background information on both the incumbent CEO and the origin of the successor CEO.

Measures

Dependent variable
We used return on assets (ROA) as the dependent variable for firm performance as ROA is a widely used accounting measure of firm performance (Zajac, 1990; Shen & Cannella, 2002; Finkelstein & D’Aveni, 1994; Geletkanycz & Hambrick, 1997; Henderson et al., 2006; Minichilli et al., 2014). We calculated the average ROA for post-succession performance for the two years following the succession.

Independent variables

CEO successors’ origins: The origin of a new CEO was classified into two basic categories: inside and outside firm successor. Consistent with recent succession studies, inside succession was coded 1 if the incoming CEO has firm tenure of at least two years before promoted to the CEO position (Cannella & Lubatkin, 1993; Harris & Helfat, 1997; Ocasio, 1999; Zhang & Rajagopalan, 2003). An outside successor was coded one only if the new CEO was not an employee of the firm. We also classified outside succession into two further categories: related outsiders who were employees of other affiliates in the same business group and non-business group affiliated outsiders. Among the 76 CEO successions, there were 35 inside successions and 41 outside successions. To test the moderating effects in our hypothesis, we created interaction variables between these three types of successors and pre-succession firm performance (Zhang & Rajagopalan, 2004).

Control variables

Pre-succession performance: We controlled for the pre-succession performance of the companies and we used return on assets (ROA). We calculated the average for the two years prior to succession.

CEO succession reason: Prior research has shown that it is crucial to consider the circumstances under which a succession occurs. We controlled for the reasons for CEO succession. The reasons for changes were primarily identified with the help of the firms' public disclosures and financial press news. Planned retirement and voluntary departure of an incumbent CEO were coded as natural departures, whereas the refusal to renew a contract and replacement of an incumbent CEO following a policy disagreement or difference in opinion or some equivalent reason were classified as dismissal (forced departures). We also differentiated cases where CEOs were appointed to a new position within the firms or affiliated business groups, so needed to be replaced by an successor.

Ownership structure: We controlled for ownership and governance through the percentage of shares owned by the foreign institutional companies/investors, family business group and other institutional shareholders.
**Firm size:** Previous research has shown that leadership succession has differing effects depending on a firm’s size. Firm size was measured by the logged values of annual firm sales.

**Data Analysis and Results**

Table 1 reports descriptive statistics for all the variables used in this study. Table 2 presents ordinary least squares (OLS) regression analysis results for the effects of CEO succession on firm performance.

In Table 2, we first predicted Model 1 with control variables. We found that pre-succession firm performance; firm size, family business group and foreign institutional ownership and CEO succession caused by incumbent CEO promotion are positively and significantly related to post-succession performance. However, Model 2 and Model 3 included variables distinguishing the origin of the CEO successor. Finally, in Model 4, the interactions of inside succession and outside succession with pre-succession firm performance were added.

In Model 2, we found that outside succession was positively related to post-succession performance (b=.026; p<.05); however, inside succession has a negative effect on firm performance (b=.025; p<.05). Hypothesis 1 predicted that outside successors are associated with higher firm performance; therefore, this hypothesis is supported. Outside succession led to better post-succession performance than inside succession in our sample.

Hypothesis 2 predicted that the performance effect of a related outside successor will be positive compared with that of an unrelated outside successor. Although the performance consequences of an outside successor are positive in our sample, when we sub-grouped outsider successors as related and unrelated, we observed that the effects of related outsiders on firm performance were negative whilst the effects of unrelated outsiders were positive. We can say that in business groups, the effects of intra-firm and intra-group successors are similar and these successors leads firms to a lower level of performance compare with the outsiders. Hypothesis 3 proposes that the positive effect of outside succession on post-succession firm performance will be stronger at lower levels of pre-succession firm performance; thus, we expected a negative and significant relationship between interaction of outside succession and pre-succession performance and post-succession performance. This hypothesis was not supported (b=.347, n.s.). Outside succession and inside succession did not differ in their effects on post-succession firm performance based on pre-succession performance level. We found that pre-succession performance had a positive effect on post-succession performance independent of the successor’s origins (b=.363, p<.01).

**Discussion and Conclusion**

This study examined the performance consequences of different types of CEO succession. To better understand the effects of CEO succession on firm performance, we distinguished between three types of succession—inside succession, related outside succession, and unrelated outside succession—and empirically investigated two research questions: (1) how do CEO successor origins influence post-succession firm performance; (2) how do these performance effects vary with key organizational contingencies specific to emerging markets? We found empirical support for two of
our research hypotheses. First, we found that outside succession was positively related to post-succession performance, whereas inside succession has a negative effect on firm performance in our sample. Further, post-succession firm performance differed between unrelated and related outside succession. These findings thus highlight the value of a potential outside CEOs’ fresh perspectives, new and diverse skills and initiative for change (Harris & Helfat, 1997; Helmich & Brown, 1972; Wiersema, 1995). It is worth noting that this result may also help to reconcile the inconsistent findings in previous literature on the performance impact of new CEO origin (for a review, see Kesner & Sebora, 1994) by highlighting insights from an emerging market, where some key internal and external contingencies are different compared with those in the context of a developed country. Our study also examined how key internal contingencies moderate the performance consequences of succession. In keeping with the theory, we found that the positive performance effects of outside succession, especially of unrelated outside CEOs, were particularly strong in family business groups and foreign companies. We expected that the positive performance effect of outside succession would be particularly strong under conditions of lower pre-succession firm performance, however we did not find support for this hypothesis. Our results also suggest that performance consequences of outside or inside successors did not significantly differ in terms of reasons for succession. However, CEO succession caused by a promotion had a positive effect on post-succession performance.

In conclusion, we would like to acknowledge some limitations of our study that, in turn, suggest interesting avenues for future research. First, like most research on CEO succession, our study relied on archival data rather than on direct observations of succession. Second, this study classified successors based only on their origins. A finer-grained classification of outside successors as well as predecessors would provide further explanation of the performance effects of CEO changes. Some background characteristics of CEOs, such as previous experience, age, education and tenures, could contribute to an understanding of succession events. Finally, we used a limited sample of large and listed firms. This sample and sample size may limit the generalizability of our findings to other contexts, in particular, to the emerging market context. Future research needs to replicate and extend our model in other organizational contexts with a larger sample size.
Table 1: Means, Standard Deviations and Correlations

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<td>.23</td>
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</table>

The European Business and Management Conference 2015
| 8. Predecessor promotion | 355 | 28 | .003 | 1 | 9 | 5 | - | .01 | .26 | .91 | .08 | 6 | 1 |
|--------------------------|-----|----|------|---|---|---|---|-----|----|----|-----|----|---|---|
| 9. Inside succession     | .460 | .05 | 5 | .01 | 4 | 7 | - | .01 | 1 | 7 | - | .01 | 0 | 7 |
| 10. Outside SUCCESSION   | .539 | .05 | 5 | .01 | 4 | 7 | - | .01 | 1 | 7 | - | .01 | 0 | 7 |
| 11. Related outside      | .236 | .24 | 3* | .01 | 8 | 6 | - | .01 | 1 | 7 | - | .01 | 0 | 7 |
| 12. Unrelated outside    | .302 | .28 | 8* | .01 | 8 | 6 | - | .01 | 1 | 7 | - | .01 | 0 | 7 |
| 13. Inside X performance | .002 | .63 | 7* | .01 | 1 | 5 | - | .01 | 1 | 7 | - | .01 | 0 | 7 |
| 14. Outside X performance| .002 | .27 | 7* | .01 | 3 | 5 | - | .01 | 1 | 7 | - | .01 | 0 | 7 |

† p<0.10; *p<.05; **p<.01; ***p<0.001 (2-tailed)
Table 2: Results of OLS Analyses: Performance Consequences of Alternative Types of CEO Succession

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2</th>
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<th>Model 4</th>
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<tr>
<td>Pre-succession firm performance</td>
<td>.363** (.311)</td>
<td>.365** (.278)</td>
<td>.365** (.278)</td>
<td>.363** (.263)</td>
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<tr>
<td>Firm size</td>
<td>.021† (.013)</td>
<td>.023† (.012)</td>
<td>.023† (.012)</td>
<td>.057† (.013)</td>
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<td>BG ownership</td>
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<td>.122 (.136)</td>
<td>.122 (.136)</td>
<td>.118 (.120)</td>
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<tr>
<td>FBG ownership</td>
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<td>.160* (.117)</td>
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<td>Foreign institutional ownership</td>
<td>.230* (.116)</td>
<td>.229* (.121)</td>
<td>.229* (.181)</td>
<td>.216* (.123)</td>
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<td>Predecessor natural departure</td>
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<td>.184 (.224)</td>
<td>.184 (.224)</td>
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<td>Predecessor forced departure</td>
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<td>.077 (.308)</td>
<td>.077 (.308)</td>
<td>.072 (.312)</td>
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<tr>
<td>Predecessor promotion</td>
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<td>.187 (.232)</td>
<td>.187 (.232)</td>
<td>.156 (.236)</td>
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<td><strong>Main effects</strong></td>
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<td>-.026* (.066)</td>
<td>-.040* (.068)</td>
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<tr>
<td>Outside Succession</td>
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<td>.024† (.053)</td>
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<td><strong>Interactions</strong></td>
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<tr>
<td>Inside succession X presuccession firm performance</td>
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<td>.154 (.419)</td>
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<tr>
<td>Outside Succession X presuccession firm performance</td>
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<td>.347 (.351)</td>
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<tr>
<td>Constant</td>
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<td>$R^2$</td>
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Standardized coefficient are reported;
† $p<0.10$; *$p<.05$; **$p<.01$; ***$p<0.001$
References


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