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Table of Contents

Impact of Learning and Teaching Management on Cooperative Education for Undergraduate Student at Rajamangala University of Technology Lanna, ChiangRai Campus, Thailand

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Abstract

The purpose of this research was to study the effect of teaching cooperative education for students in Rajamangala University of Technology Lanna Chiang Rai (RMUTL). The research population was 62 students from Division of Electrical Engineering and Division of Tourism and Hotel who enrolled for the cooperative educational course. Research tool was questionnaires. Statistics used for data analysis were frequency, percentage, mean, and standard deviation.

It was found that there were 4 aspects of effect for teaching cooperative education for the students in RMUTL which were the highest average in all aspects in terms of cooperative educational course management, teaching plan, management and strategy, staff, resources, and information system, relevant activities, cooperative educational employment and certification, selection to work in a workplace, counseling, problem solving, and supervising, the compensation and benefit, and the cooperative educational evaluation.

Keywords: Learning and Teaching Management, Cooperative Education

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Introduction
Global changing nowadays caused high competition in labor market. The characteristics of graduates that is required such as knowledge and skills, work planning system, acquire learning, making decision, problem solving, human relations, initiative, discipline, ethic, moral, communicative skills, presentation, and leadership, etc. The students are able to acquire and develop these skills when they work. To study in the classroom is not provide any working skills, they have to be trained how to work which is in charge of the relevant institution and higher education to prepare the graduates for labor market. Graduate supervisors and Office of the Higher Education Commission as the graduate supporter have to work together to produce qualified graduates.

Office of the Higher Education Commission realizes about how to develop higher education in Thailand especially to develop the qualified potential of graduates for both local and international labor market. Cooperative education is the approach which can develop the graduates' working skills. Office of the Higher Education Commission promotes and supports this approach continuity and sustainability to produce qualified graduates for labor market by cooperating institution of education, Thai cooperative education association, higher education development network, and graduate supervisor organization. This will help in developing higher education management as well as Thai economy and society. According to the approach mentioned, Office of the Higher Education Commission has specified objective, goal, strategy, core measure, project, and activities to support and promote cooperative education.

Cooperative education is the education that based on learning and working in a workplace or work-based learning or project. The course concerns improving or problem solving for working process which students are able to achieve within 4 months. This helps students to learn from their working experience as well as to gain qualified skills for the enterprise.

Rajamangala University of Technology Lanna Chiang Rai focuses on produces hands-on learners who specialize in both theoretical and practical that is required for industrial sector. In order to produce the potential skilled students, Rajamangala University of Technology Lanna Chiang Rai provides cooperative education for the Faculty of Engineering, Division of Electrical Engineering for two semesters. Students have to achieve cooperative education training according to the university timeline. Cooperative education was successful. The enterprise and students were impressed and students were accepted to work in many workplaces. Cooperative education was improved and developed continuity. All students were trained about working skills and experience as hands-on learners.

The quality of education depends on the benefits of cooperative education management.
The researcher as the Director of Academic Affairs who in charge of cooperative education management especially to develop the curriculum according to the demand of labor market and enterprise, and who realizes about the benefits of cooperative education, conducted research in order to figure out how to prevent, improve, and develop quality cooperative education system and to reach international standard for ASEAN labor market.

Methodology
Research methodology for the research entitled the effect of teaching cooperative education for students in Rajamangala University of Technology Lanna Chiang Rai were as followed:

Population is 62 students who enrolled for cooperative education as below:

1)   33 students of Division of Electrical Engineering (1/2013)
2)   16 students of Division of Electrical Engineering (2/2013)
3)   13 students of Division of Tourism and Hotel (1/2013)

Research tool
Research tool for this research was questionnaires

(1). Studied relevant research and documents for cooperative education in higher education institution.
(2). Created tool for data collecting by using the information from (1) which was questionnaires.

Questionnaire concerns teaching cooperative education in Rajamangala University of Technology Lanna Chiang Rai that figure out the answer for the research objective. Questionnaire is divided into four parts which are:

Part 1 General information of the students who enrolled for cooperative educational program. Form of questionnaire was checklist.
Part 2 the effect of teaching cooperative education in Rajamangala University of Technology Lanna Chiang Rai. Form of questionnaire was five rating scales which were the most, more, moderate, less, and the least.

The meaning for the rating scales were:

4.50 – 5.00 means the most applicable
3.50 – 4.49 means more applicable
2.50 – 3.49 means moderate applicable
1.50 – 2.49 means less applicable
1.00 – 1.49 means the least applicable

Tool quality examination
Steps for tool quality examination were:

1) Studied the relevant research and document concerning cooperative education in order to create the questionnaires that included the evaluation of the effect for cooperative education in Rajamangala University of Technology Lanna Chiang Rai in four aspects which were:
(1) 7 items of cooperative educational course management
(2) 27 items of cooperative educational unit management
(3) 36 items of relevant activities for cooperative education
(4) 6 items of other activities concerning cooperative education

2) Specified the main matter which was used for the questionnaires in order to evaluate teaching cooperative education management. Then presented them to veteran for improving and commenting.

3) Presented the questionnaires with 76 items to three veterans for examining precise and appropriate of the evaluation for the effect of cooperative education management. It was found that all 76 items were precise and appropriate between 0.60 – 1.00.

4) Tested the tool which was improved with 20 students in Rajamangala University of Technology Lanna, Tak campus who were not research population. Then figured out the reliability by using Cronbach's alpha-coefficient (1977). It was found that the reliability was 0.981

5) Used the tool with reliability for creating the questionnaires which evaluated the qualified characteristics of graduates for enterprise. After that used the questionnaires which evaluated the effect of teaching cooperative education management with the research population.

Data collecting
Data for the research concerning cooperative educational management in Rajamangala University of Technology Lanna was collected by using the questionnaires for research samples. The cooperative educational students' adviser arranged the students in a main hall to do the questionnaires and all of the questionnaire were returned.

Data analysis
Research data which was from the questionnaires was analyzed by using research analysis program as follows:
Statistics used for figure out the answer for research objective items 1 and 2 which were frequency, percentage, and standard deviation, then described the result analysis.

Research results
1. Effect of teaching cooperative educational management for the students in Rajamangala University of Technology Lanna Chiang Rai

 1) Cooperative educational course management
1.1   Cooperative educational course and credit
 The effect of teaching cooperative educational management for students in Rajamangala University of Technology Lanna Chiang Rai for cooperative educational course and credit which the most effect was cooperative educational course contained core selective subject which has 6 credits ($\bar{x} = 4.41$). The least effect was the cooperative education subject ($\bar{x} = 2.58$)
1.2   Cooperative education teaching plan
 The most effect of cooperative education management was Faculty or Division can provide cooperative educational course either for the third year or forth year if applicable ($\bar{x} = 4.41$). The least effect was to study cooperative education preparation before cooperative education ($\bar{x} = 4.17$)

2) Cooperative educational unit management
(1) Cooperative educational structure

The effect of teaching cooperative educational management for the students in Rajamangala University of Technology Lanna Chiang Rai for cooperative educational structure which the most effect was as cooperative education as the central unit that regulates and supports the cooperative education of the Faculty ($\bar{x} = 4.40$). The least effect was cooperative education center which worked in the Academic affair sector and was regulated by the Vice-president of Academic affair ($\bar{x} = 4.12$)

(2) Cooperative educational management and strategy
The effect of teaching cooperative educational management for the students in Rajamangala University of Technology Lanna Chiang Rai for cooperative educational management and strategy which the most effect was the evaluation and report to Board of cooperative educational center for improvement. ($\bar{x} = 4.43$). The least effect was the cooperative educational staff contacted and collaborated with the enterprise ($\bar{x} = 4.17$).

 (3) Staff, resources, and information system
The effect of teaching cooperative educational management for the students in Rajamangala University of Technology Lanna Chiang Rai for staff, resources, and information system which the most effect was staff such as 1. The cooperative educational officers, and 2. Board of cooperative educational center, Vice Dean of Academic, person who undertakes cooperative education in the faculty, cooperative educational advisers, personal resources, and enterprise counselors. ($\bar{x} = 4.45$). The least effect was contacted the relevant unit to arrange material or equipment that was used for cooperative education. ($\bar{x} = 4.12$)

3) Relevant activities for cooperative education
(1) Cooperative educational students' preparation
The effect of teaching cooperative educational management for the students in Rajamangala University of Technology Lanna Chiang Rai for cooperative educational students preparation which the most effect was the lecture concerning cooperative education for potential students ($\bar{x} = 4.48$). The least effect was the orientation for the cooperative educational students before they work in the workplace ($\bar{x} = 4.17$).
 (2) Cooperative educational employment and certification
 The effect of teaching cooperative educational management for the students in Rajamangala University of Technology Lanna Chiang Rai for cooperative educational employment and certification which the most effect was the collaboration of cooperative educational officers, faculty or division, and enterprise to provide the quality work that suffice for the cooperative educational students. ($\bar{x} = 4.51$). The least effect was the various ways to contact the enterprise such as invitation letter, telephone, fax, email, and walk in ($\bar{x} = 4.14$).

 (3) A student selection to work in a workplace
 The effect of teaching cooperative educational management for the students in Rajamangala University of Technology Lanna Chiang Rai for a student selection to work in a workplace which the most effect was the cooperative educational advisers who advise and approve for the students to work in a workplace ($\bar{x} = 4.51$). The least effect was student can choose a workplace where interested ($\bar{x} = 4.14$).

 (4) Counseling, problem solving, and supervising cooperative education
 The effect of teaching cooperative educational management for the students in Rajamangala University of Technology Lanna Chiang Rai for counseling, problem solving, and supervising cooperative education which the most effect was the cooperative education advisers supervised the students who work in the workplace one time as minimum. ($\bar{x}$ = 4.48). The least effect was the cooperative educational adviser contacted students' advisory staff to inform a supervision plan. ($\bar{x}$ = 4.17).

 (5) Compensation and benefit for cooperative education students
The effect of teaching cooperative educational management for the students in Rajamangala University of Technology Lanna Chiang Rai for compensation and benefit for cooperative education students which the most effect was the cooperation of cooperative educational officers, person who undertakes cooperative education in the faculty, and enterprise to inform the students about compensation and benefits ($\bar{x}$ = 4.38). The least effect was tax benefit provided to the enterprise where arranged cooperative education both in a form of document and electronic media that the enterprise can use for students' compensation and benefit ($\bar{x}$ = 4.16).

(6) Cooperative educational evaluation
 The effect of teaching cooperative educational management for the students in Rajamangala University of Technology Lanna Chiang Rai for compensation and benefit for cooperative educational evaluation which the most effect was the 8 scales of performance which are A   B+   B   C+   C   D+   D   F ($\bar{x}$ = 4.43). The least effect was students' self-evaluation before and after worked in a workplace ($\bar{x}$ = 4.16).

4) Other activities concerning cooperative education
The effect of teaching cooperative educational management for the students in Rajamangala University of Technology Lanna Chiang Rai for other activities concerning cooperative education which the most effect was the collaboration of academic activities between enterprise and university such as academic service, academic cooperative educational project, and veteran. ($\bar{x}$ = 4.45). The least effect was the activities for alumni related to knowledge and skills ($\bar{x}$ = 4.14).

Conclusion
1. Effect of teaching cooperative educational management for the students in Rajamangala University of Technology Lanna Chiang Rai

1.1   Cooperative educational course management
1)   Cooperative educational course and credit
The effect of teaching cooperative educational management for the   students in Rajamangala University of Technology Lanna Chiang Rai for cooperative educational course and credit which the most effect was cooperative educational course contained core selective subject which has 6 credits ($\overline{x}$ = 4.41). The least effect was the cooperative education subject ($\overline{x}$ = 2.58)

2)   Cooperative education teaching plan
The most effect of cooperative education management was Faculty or Division can provide cooperative educational course either for the third year or forth year if applicable ($\overline{x}$ = 4.41).   The least effect was to study cooperative education preparation before cooperative education ($\overline{x}$ = 4.17).

 Cooperative educational course contained core selective subject which has 6 credit is not effective according to the learning process. Students should choose the subject by themselves, not the advisers. This will help students to learn better according to their knowledge background and interest according to National Education Act 1999, Section 4 Education Management, and Clause 24(3) stated that "Learning by doing". Work Integrated Learning is successful in Thailand such as doctor, nurse, and teacher etc. Furthermore, Office of the Higher Education Commission specified a policy of work-based or community based education such as internship or apprenticeship for bachelor degree or Engineering Practice School. Work Integrated Learning makes curriculum development and a good relationship between higher education institute and enterprise.

1.2   Cooperative educational unit management
 1) Cooperative educational structure
 The effect of teaching cooperative educational management for the students in Rajamangala University of Technology Lanna Chiang Rai for cooperative educational structure which the most effect was as cooperative education as the central unit that regulates and supports the cooperative education of the Faculty ($\overline{x}$ = 4.40). The least effect was cooperative education center which worked in the Academic affair sector and was regulated by the Vice-president of Academic affair ($\overline{x}$ = 4.12)

 2) Cooperative educational management and strategy
 The effect of teaching cooperative educational management for the students in Rajamangala University of Technology Lanna Chiang Rai for cooperative educational management and strategy which the most effect was the evaluation and report to Board of cooperative educational center for improvement. ($\overline{x}$ = 4.43). The least effect was the cooperative educational staff contacted and collaborated with the enterprise ($\overline{x}$ = 4.17).

3) Staff, resources, and information system
The effect of teaching cooperative educational management for the students in Rajamangala University of Technology Lanna Chiang Rai for staff, resources, and information system which the most effect was staff such as (1). The cooperative educational officers (2). Board of cooperative educational center, Vice Dean of Academic, person who undertakes cooperative education in the faculty, cooperative educational advisers, personal resources, and enterprise counselors. ($\bar{x} = 4.45$). The least effect was contacted the relevant unit to arrange material or equipment that was used for cooperative education. ($\bar{x} = 4.12$)

The strategy of cooperative education management by contacting the relevant unit to arrange material or equipment that was used for cooperative education that students can have learning equipment and can learn effectively. The achievement evaluation for cooperative education which was done by the Office of the Higher Education Commission between 2002-2004 presented the mutual benefits of cooperative education as collaboration of students, higher education institution, and enterprises which higher education institution can produce qualified graduates according to the enterprises' demand. Cooperative education connects educational sector and industrial business sector. Students are trained how to work before graduation. Data obtained from students' working experience helps for curriculum or course development such as communicative skill and presentation skill. A meeting between students' adviser and enterprise's officer is also create academic collaboration.

1.3 Relevant activities for cooperative education
1) Cooperative educational student's preparation
The effect of teaching cooperative educational management for the students in Rajamangala University of Technology Lanna Chiang Rai for cooperative educational students preparation which the most effect was the lecture concerning cooperative education for potential students ($\bar{x} = 4.48$). The least effect was the orientation for the cooperative educational students before they work in the workplace ($\bar{x} = 4.17$).

Relevant activities for cooperative education such as lecture concerning cooperative education for potential student before working in a workplace. To learn from experience, will help student to learn effectively according to the research of cooperative education center, Suranaree Technology University (1993) stated the university has initiated and developed cooperative education system since 1993 by collaborating both industrial business sector and government sector and arranged three semesters for studying with two times for cooperative education. The process for cooperative education began with application for the course, contacted enterprise, recruit students, appointed adviser, and worked in a workplace. The adviser observed student while they were working. Student was evaluated by the enterprise and the adviser, then informed the student.

2) Cooperative educational employment and certification
The effect of teaching cooperative educational management for the students in Rajamangala University of Technology Lanna Chiang Rai for cooperative educational employment and certification which the most effect was the collaboration of cooperative educational officers, faculty or division, and enterprise to provide the quality work that suffice for the cooperative educational students. ($\bar{x} = 4.51$). The

least effect was the various ways to contact the enterprise such as invitation letter, telephone, fax, email, and walk in ($\bar{x} = 4.14$).

Student can trained how to work professionally according to the university's vision and mission that to produce the professional hands-on graduates. The research of Suranaree Technology University (1993) presented that the enterprise criticized about the disqualify students who lack of working and communicating skills. To develop graduates production, the Office of the Higher Education Commission have to support cooperative education in order to help students to learn by doing as well as can learn how to solve the problem and work effectively.

 3) A student selection to work in a workplace
 The effect of teaching cooperative educational management for the students in Rajamangala University of Technology Lanna Chiang Rai for a student selection to work in a workplace which the most effect was the cooperative educational advisers who advise and approve for the students to work in a workplace ($\bar{x} = 4.51$). The least effect was student can choose a workplace where interested ($\bar{x} = 4.14$).

 A student selection to work in a workplace according to the enterprise's demand which the student's adviser will advise and approve for working in that workplace in order to encourage student to work as Herman Schneider (1906)'s cooperative education approach which was used for problem solving in the low skilled classroom that required practical to help the learner to understand. Schneider divided Engineering students into two groups. One group of student studied in the classroom and the other group practice working in a factory. It was found that to study in the classroom and to work in a factory created students' motivation. Student was also understand and can learn better which caused cooperative education to expand rapidly for Technology Science and Social Science. But there was also had problem for cooperative education such as suitable employment, labor union and teacher resistance, economy decreasing, appropriate structure, longer term for working from 2,4, 5.10,12 and 16 weeks or one semester has 6 months or 1 year. Learning through working experience in a form of cooperative education is still processing and expanding.

 4) Counseling, problem solving, and supervising cooperative education
 The effect of teaching cooperative educational management for the students in Rajamangala University of Technology Lanna Chiang Rai for counseling, problem solving, and supervising cooperative education which the most effect was the cooperative education advisers supervised the students who work in the workplace one time as minimum. ($\bar{x} = 4.48$). The least effect was the cooperative educational adviser contacted students' advisory staff to inform a supervision plan ($\bar{x} = 4.17$).

 Cooperative education student' adviser should advise and solve the problem for the students one time as minimum so student will learn how to work and work regulatory which according to Herman Schneider (1903) stated the sandwich course which was the work experience learning in England at Sunderland College for Engineering and Architecture Marine on 1903. This course contained one year practical and study for three years. Time period for working was various from two to five with different time and was regulated by college, university, and industry. Adviser will advise and evaluate working performance which different from America and Canada. There was

some problem when initiated the course because of the employer's attitude that a university provided knowledge and training center provided working skill. The university which arranged cooperative education was promoted in England especially the students who can solve the problem, present information technology, work in team, and responsible are employed after graduation.

5) Compensation and benefit for cooperative education students
The effect of teaching cooperative educational management for the students in Rajamangala University of Technology Lanna Chiang Rai for compensation and benefit for cooperative education students which the most effect was the cooperation of cooperative educational officers, person who undertakes cooperative education in the faculty, and enterprise to inform the students about compensation and benefits ($\bar{x} = 4.38$). The least effect was tax benefit provided to the enterprise where arranged cooperative education both in a form of document and electronic media that the enterprise can use for students' compensation and benefit ($\bar{x} = 4.16$).

Cooperative students are encouraged and motivated by providing compensation and benefit so the students can work effectively. According to Office of the Higher Education Commission (2004) presented that there was a problem for cooperative education in Thailand between 2002-2004 such as knowledge about cooperative education principles and cooperative education processing. But there were many reports stated about the advantage of cooperative education as academic collaboration and can use for staff recruitment. Cooperative education student is potential which government should support.

6) Cooperative educational evaluation
The effect of teaching cooperative educational management for the students in Rajamangala University of Technology Lanna Chiang Rai for compensation and benefit for cooperative educational evaluation which the most effect was the 8 scales of performance which are A   B+   B   C+   C   D+   D   F ($\bar{x} = 4.43$). The least effect was students' self-evaluation before and after worked in a workplace ($\bar{x} = 4.16$).

Cooperative education evaluation which contain 8 scales is used to inform students about their working performance in the workplaces that is useful for graduate production management. According to Office of the Higher Education Commission (2004)'s cooperative education report presented that cooperative education evaluation creates mutual benefits such as Higher Education Institution can produce potential graduates who are required for labor market. It also connects education and industrial sector as job training education. Students can work in the workplaces before graduation. This also provides Higher Education Institution publication and increases employment. The information from cooperative education evaluation can be used for improving or developing curriculum or courses such as communication or presentation skills. There is the academic collaboration between the enterprise and Higher Education Institution.

1.4) other activities concerning cooperative education
The effect of teaching cooperative educational management for the students in Rajamangala University of Technology Lanna Chiang Rai for other activities concerning cooperative education which the most effect was the collaboration of

academic activities between enterprise and university such as academic service, academic cooperative educational project, and veteran. ($\bar{x} = 4.45$). The least effect was the activities for alumni related to knowledge and skills ($\bar{x} = 4.14$)

Other activities concerning cooperative education is arranged for further work experience. The process of cooperative education are apply for cooperative education and contacts the workplace, recruit students, appoints cooperative education advisors to supervise students, student works in the workplaces, cooperative education advisor supervises a student in a workplace, a workplace evaluates the cooperative education student, and informs student about their evaluation. Herman Schneider (1903) stated the sandwich course which was the work experience learning in England at Sunderland College for Engineering and Architecture Marine on 1903. This course contained one year practical and study for three years. Time period for working was various from two to five with different time and was regulated by college, university, and industry. Adviser will advise and evaluate working performance which different from America and Canada. There was some problem when initiated the course because of the employer's attitude that a university provided knowledge and training center provided working skill. The university which arranged cooperative education was promoted in England especially the students who can solve the problem, present information technology, work in team, and responsible are employed after graduation.

Suggestion for further research
1. Should study about international cooperative education for ASEAN
2. Should study about cooperative education management in the workplace
3. Should evaluate the project of cooperative education for both vocational and higher education institution
4. Should conduct research of comparative achievement of student who participate cooperative education and project of student supervision
5. Should conduct comparative research of cooperative education management between educational institution and the enterprise

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Continuance Usage Intention of WeChat by Users In Malaysia

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Abstract

A research released by GlobalWebIndex (GWI) in November 2014 showed the active user base in Malaysia has grown by 1,187% from Q1 2013 to Q3 2014, with young demographic aged between 16 to 34 years old, dominating more than 80% of the WeChat user base. This study intends to explore the continuance usage intention among its 1 million users in the country. By employing six uses and gratifications; namely sex, social inclusion, entertainment, friendship, romantic relationships, and people nearby, adopted from Van De Wiele, C., & Tong, S. T. (2014, September); Pearson-Correlation Analysis was used to test whether there are significant relationships between variables and usage continuance intention. Using Google Docs, data will be collected from 100 WeChat users in Malaysia using stratified sampling. According to Roscoe (1975) sample sizes of greater than 30 and less than 500 are appropriate for most research. Many scholars have also recently implemented Google Docs as a medium for online surveys as it keeps data safe in the most basic format of spreadsheets. The results indicated that factors such as social inclusion (r=0.479), friendship (r=0.443), entertainment (r=0.443), romantic relationships (r=0.397), and people nearby (r=0.442) have moderate positive correlations with intention to continue using WeChat among Malaysians. However, there was no significant correlation between continuance intention usages of WeChat to pursue sexual events (r = 0.097). Findings from this study are contributing to the ever-increasing modernization and expansion of the Internet platform for various purposes.

Keywords: WeChat, People-nearby applications, PNA, Gratification Factors, Continuance Usage Intention

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Introduction

In this new era, social networking sites have reached a prevailing revolution. Millions of people are now devoted with this and both online and conservative activities result the swelled platform that touches orthodox way of lifespan. According to Courtney, N. (2007), social network can be defined as profile based platform which permits users and it involves visiting, observing and interrelating the perspectives and sentiments between and among the members through social and personal happenstances. On these persons can be searched based on keyboard descriptions in order to connect and interact and at the same time social phenomena can be exposed.

"People-nearby applications" (PNAs) are forms of global computing that associate users based on their physical setting data. One example of a PNA is WeChat. WeChat is an application for smartphones and tablets users and also tailored as a social media platform. Mobile social communication app WeChat has stretched to 549 million monthly active users (MAUs) globally. It is a jump from the 500 million users-mark marked in April 2015. In Malaysia, PNAs such as WeChat has boasts a 95% smartphone penetration rate. WeChat users are able to construct a profile over the Internet and add contacts that are in their device contact list. WeChat also have the feature called 'Shake' that allows user to shake their device to find a contact that is shaking the device as the same time; another feature to allow finding people is the function people nearby, which based on the present location of the user WeChat will recommend people to be added to the friend list. WeChat also allow their user to post picture to share to all their contacts in a feature called 'moments'. Other than that WeChat is first and foremost an instant messaging application that allows media sharing between their users.

Although quite number of local studies were done on WeChat (Said, H., 2013; Yoag, A., & Siganul, R. S, 2015; Francis, P., Thomas, M., Shahid, S. A. M., & Jani, S. H. M, 2015; Ching, S. M., Yee, A., Ramachandran, V., Lim, S. M. S., Sulaiman, W. A. W., Foo, Y. L., & kee Hoo, F., 2015), these studies were only stating the PNA without any data on the whether users had the intention to continue using the PNA. Surely users has gratified with the use of WeChat but no studies, particularly in Malaysia have yet to identify WeChat users' continuance usage intention. Due to the above limitations, this study is carried out to fill this gap in the literature.

Review of literatures

Van De Wiele, C., & Tong, S. T. (2014, September) has listed six uses and gratifications (U&G) to represent the success/failure of PNA usages. These variables entail of sex, friendship, entertainment, social inclusion, romantic relationships, and people nearby. The U&G framework dons that individuals' needs sway their media use. The results achieved from that media use entice and clutch them to media content (Ruggiero, T. E. 2000). Although the U&G framework was formerly developed to probe and pinpoint mass media effects, it has also been smeared to describe individuals' use of latest Internet technology, as claimed by Dimmick, J., Feaster, J. C., & Ramirez, A. (2011); and Ku, Y. C., Chu, T. H., & Tseng, C. H. (2013); and also to to describe the use of mobile technology (Wei, R., & Lo, V. H. 2006). One important dissimilarity between the initial focus on traditional mass media (such as television) and the transferal to new communication technologies is the vaster degree

of interactivity the latter systems offer to users. In the U&G context, interactivity refers to the degree of control individuals experience in the communicative process. For instance, users' ability to supply information to the system, the sensitivity of a medium to its users, and the degree to which a medium facilitates communication among users (Ruggiero, T. E. 2000). Thus the high degree of interactivity of Internet and mobile communication technologies is not just coherent with the active audience assumption of U&G, it lengthens the assumption—as interactivity rises, so does the audience's power over media, which gives them a more "instantaneous" route to gratification than that provided by conventional mass media arrangements, as stated by Alonzo, M., & Aiken, M. (2004).

The use of social networking sites has surfaced precipitously as an idyllic dais for social interaction. Diverse social networking sites are depicted according to their norm like business networking, amusement and social communications. According to Ellison, N. B., Steinfield, C., & Lampe, C. (2007), the initiation of social media network eases online communities to sustain preexistent social connections and make new virtual friends. Mital, M., Israel, D., & Agarwal, S. (2010) later claimed that earlier studies on the usage of Social Network System (SNS) reported that SNSs are largely used for messaging, distribution of information and keeping in touch with each other for social inclusion. This has encouraged them to continue using the social media platform. Consequently, the following hypothesis is developed:

H1: There is a significant relationship between social inclusion and continuance usage intention of WeChat.

Outlets such as *Vanity Fair* and *The New York Times* have proposed that the remarkable (if not sole) inspiration for PNA use, such as Grindr, is for "casual sex" or "hook ups"(Kapp, M., 2011; Wortham, J., 2013). Earlier survey research from Landovitz, R. J., Tseng, C. H., Weissman, M., Haymer, M., Mendenhall, B., Rogers, K., & Shoptaw, S. (2013); and Rice, E., Holloway, I., Winetrobe, H., Rhoades, H., Barman-Adhikari, A., Gibbs, J., & Dunlap, S. (2012) has undeniably shown that users frequently turn to Grindr to attain sexual satisfactions. Thus, this study is asking whether:

H2: There is a significant relationship between sex and continuance usage Intention of WeChat.

Apart from Twitter, Facebook has been rated to have the major number of users (Demirtas, M. 2012). The varied entertainment functions like online games, the apps, the advertisement facilities and so on, have made it popular, particularly among the youth. No studies however, have yet confirmed entertainment functions of WeChat and whether it was adequate to retain the attentions of its users. Other studies however suggested additional, less obvious motivations for PNA (Grindr) use, such as friendship, socializing, or committed romantic relationship initiation (Gudelunas, D.,2012; Landovitz, R. J., Tseng, C. H., Weissman, M., Haymer, M., Mendenhall, B., Rogers, K., ... & Shoptaw, S., 2013; and Rice, E., Holloway, I., Winetrobe, H., Rhoades, H., Barman-Adhikari, A., Gibbs, J., ... & Dunlap, S., 2012). Thus, the following hypotheses were proposed:

H3: There is significant relationship between friendship and continuance usage intention of WeChat.

H4: There is a significant relationship between entertainment and continuance usage intention of WeChat.

H5: There is a significant relationship between romantic relationships and continuance usage intention of WeChat.

In brief, PNAs are designed to collect each user's geographic location from a mobile phone. That location is then transmitted to a centralized server, allowing other users to access that information to see who is nearby, state Toch, E., & Levi, I. (2013, September). Grindr as a PNA was praised for its its ability to redistribute and redefine the boundaries of "gay space." It was being continuously used for many years in different forms, because of its function to provide protection in numbers, political and social networks, information exchange, and increased community visibility and pride (Crooks, R. N., 2013 and Spring, A. L., 2013). Thus study wanted to see whether:

H6: There is a significant relationship between people nearby and continuance usage intention of WeChat.
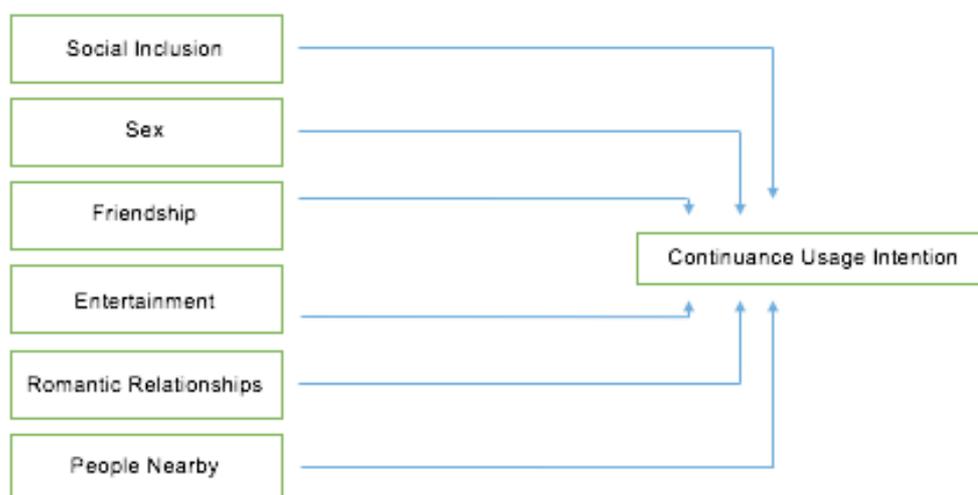
Figure 1. Conceptual framework of the study

Methodology

The respondents of this study were users of WeChat, currently residing in Malaysia; and within the age of 16 to 34 years old. The selection of these strata was based on a research released by GlobalWebIndex (GWI) in November 2014 showing that the active user base in Malaysia were young demographic aged between 16 to 34 years old, dominating more than 80% of the WeChat user base. By employing six uses and gratifications: social inclusion, sex, friendship, entertainment, romantic relationships, and people nearby, adopted from Van De Wiele, C., & Tong, S. T. (2014, September), an online survey using Google Docs was done using stratified sampling. Items for continuance intention usage were adopted from Chong, A. Y. L. (2013). 100 respondents participated in the survey. According to Roscoe (1975) sample sizes of greater than 30 and less than 500 are appropriate for most research. Many scholars

have also recently adopted Google Docs as a means of completing online surveys as it keeps data safe in the most basic format of spreadsheets. The online survey consisted of two sections. The first section gauged information on usage patterns among WeChat users in Malaysia; meanwhile, the second section was designed to determine their continuance intentions to use the PNA. As for data analysis, all data collected were analyzed using Statistical Package for Social Science (SPSS). Various analyses such as reliability of the data, descriptive analysis, and correlation were performed. The results of the analyses are presented in the following section.

Reliability test was done to determine the internal stability and consistency of the data collected. Reliability assessment of the entire scale was first computed followed by the assessments of individual items supposed to measure the research constructs. A total of twenty-seven items measuring six constructs and one dependent variable (five items measuring Social Inclusion, four items measuring Sex, six items measuring Friendship, four items measuring Entertainment, three items measuring Romantic Relationships, two items measuring People Nearby; and three items measuring Continuance Usage Intention were assessed for reliability (n=30) (See Table 1). Next, the overall reliability was assessed and the assessment of the entire scale was observed to be good with a Cronbach's alpha of .876 (n=30); indicating that the questionnaire had internal consistency. As such, the reliability test supported the appropriateness of the instrument used in the study.

Variables	Items	Cronbach's Alpha
Social Inclusion (IV)	5	0.928
Sex (IV)	4	0.960
Friendship (IV)	6	0.921
Entertainment (IV)	4	0.910
Romantic Relationships (IV)	3	0.938
People Nearby (IV)	2	0.984
Continuance Usage Intention (DV)	3	0.839

Table 1. Reliability Analysis Results

Data analysis and findings
Respondents' Background and Correlation Analysis

Respondents in this study have been divided into homogeneous subgroups; which comprises of WeChat users, residing in Malaysia and; aged between 16 to 34 years old. This was made clear on the first page of the online survey. Those who clicked 'Yes' was directed to the next section of the survey; and those who clicked 'No' was made to leave. The "Only allow one response per person" feature in the "Form Settings" was also initiated. This is to ensure that a person only responds to the form, once.

In this study, Pearson's correlation coefficient (r) was used to measure the strength of relationship between patterns of usage (inclusion, sex, friendship, entertainment, romantic relationships; people nearby) with their intentions to continue using WeChat. The r -value is between −1 and +1. The absolute value indicates the strength, while the sign (+or −) indicates the direction of the relationship. The scales below were outlined by Elifson, K. W., Runyon, R. P., & Haber, A. (1998) and can be used to

interpret the relationship between independent variables and dependent variable (Table 2).

Correlation coefficient (r)	Strength of relationship
0	No relationship
0.01–0.30	Weak
0.31–0.70	Moderate
0.71–0.99	Strong
1	Perfect

Table 2. Pearson's correlation coefficient strength indicator

Intention to continue using WeChat		
Social Inclusion	Pearson's correlation	0.479**
	Sig. (2-tailed)	0.000
Sex	Pearson's correlation	0.097
	Sig. (2-tailed)	0.339
Friendship	Pearson's correlation	0.443**
	Sig. (2-tailed)	0.000
Entertainment	Pearson's correlation	0.443**
	Sig. (2-tailed)	0.000
Romantic Relationships	Pearson's correlation	0.397**
	Sig. (2-tailed)	0.000
People Nearby	Pearson's correlation	0.442**
	Sig. (2-tailed)	0.000

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

Table 3. Table of results

As shown in Table 3, it was found that all the five independent variables were significantly and positively correlated to customers' continuous intention to use WeChat (p -value < 0.01). The results indicated that factors such as social inclusion (r=0.479), friendship (r=0.443), entertainment (r=0.443), romantic relationships (r=0.397), and people nearby (r=0.442) have moderate positive correlations with intention to continue using WeChat among Malaysians. This means that, these factors has moderately influenced them to continue using WeChat; and played reasonable, modest; and sensible roles for them to keep using the PNA. However, it was found that there was no significant correlation between continuance intention usages of WeChat to pursue sexual events. (r = 0.097).

		TOTALCONTI NUANCE	TOTALSOCIA L
TOTALCONTINUA NCE	Pearson Correlation	1	.479**
	Sig. (2-tailed)		.000
	N	100	100
TOTALSOCIAL	Pearson Correlation	.479**	1
	Sig. (2-tailed)	.000	
	N	100	100

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

Table 4. Relationships between social inclusion and continuance usage intention

		TOTALCONTI NUANCE	TOTALSEX
TOTALCONTINUA NCE	Pearson Correlation	1	.097
	Sig. (2-tailed)		.339
	N	100	100
TOTALSEX	Pearson Correlation	.097	1
	Sig. (2-tailed)	.339	
	N	100	100

Table 5. Relationships between sex and continuance usage intention

		TOTALCONTI NUANCE	TOTALFRIEN DSHIP
TOTALCONTINUA NCE	Pearson Correlation	1	.443**
	Sig. (2-tailed)		.000
	N	100	100
TOTALFRIENDSHI P	Pearson Correlation	.443**	1
	Sig. (2-tailed)	.000	
	N	100	100

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

Table 6. Relationships between friendship and continuance usage intention

		TOTALCONTI NUANCE	TOTALENTE RTAINMENT
TOTALCONTINUA NCE	Pearson Correlation	1	.443**
	Sig. (2-tailed)		.000
	N	100	100
TOTALENTERTAI NMENT	Pearson Correlation	.443**	1
	Sig. (2-tailed)	.000	
	N	100	100

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

Table 7. Relationships between entertainment and continuance usage intention

		TOTALCONTI NUANCE	TOTALROMA NTIC
TOTALCONTINUA NCE	Pearson Correlation	1	.397**
	Sig. (2-tailed)		.000
	N	100	100
TOTALROMANTI C	Pearson Correlation	.397**	1
	Sig. (2-tailed)	.000	
	N	100	100

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

Table 8. Relationships between romantic relationships and continuance usage intention

		TOTALCONTI NUANCE	TOTALNEAR BY
TOTALCONTINUA NCE	Pearson Correlation	1	.442**
	Sig. (2-tailed)		.000
	N	100	100
TOTALNEARBY	Pearson Correlation	.442**	1
	Sig. (2-tailed)	.000	
	N	100	100

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

Table 9. Relationships between people nearby and continuance usage intention

Hypothesis	Relationships	Result
H1	There is a significant relationship between social inclusion and continuance usage intention	Supported
H2	There is no significant relationship between sex and continuance usage intention	Not supported
H3	There is a significant relationship between friendship and continuance usage intention	Supported
H4	There is a significant relationship between entertainment and continuance usage intention	Supported
H5	There is a significant relationship between romantic relationships and continuance usage intention	Supported
H6	There is a significant relationship between people nearby and continuance usage intention	Supported

Table 10. Hypothesis Result Summary

Conclusion and Recommendations

Due to the lack of studies in investigating continuance usage intention of WeChat among Malaysians, this study is performed with the aim to test whether there are significant relationships between what WeChat has offered (social inclusion, sex, friendship, entertainment, romantic relationships, and; people nearby) and intention to continue using it in the future. This study has undoubtedly provided a platform for PNA service providers to come out with better technological aspects to cater uses and gratifications of WeChat in the future. Prospect research should also examine other important factors such as how individuals' experiences within physical localities (e.g., community centers, bars/clubs, etc.) affect the frequency and type of WeChat use.

Acknowledgments

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Biosocial Factors Affecting Spiritual Well-Being of the Elderly in Thailand

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Abstract

Spiritual well-being is a sense of peace and contentment stemming from an elderly individual's relationship with the spiritual aspects of life in relation to the quality of life. This descriptive research was aimed at determining the biosocial factors influencing the spiritual well-being of elderly persons lived in rural area of Chacheongsao Province located in Eastern Thailand. Questionnaires were administered to 330 elders by personal interviews between August and October 2015. According to the findings, gender, marital status, education, religion, working conditions, people who living with, and activities with elderly club affected the spiritual well-being of the elderly by t-test, and One-way ANOVA at a 0.05 level of significance, while age was unaffected to spiritual well-being of the elderly. The findings of this study confirmed the significant of various biosocial factors that affect the spiritual well-being of the elderly.

Key words: biosocial, spiritual well-being, elder, Thailand

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Introduction

The elderly population in Thailand has increased steadily (Foundation for Older Persons' Development (FOPDEV), 2015). Changing of socioeconomic conditions, cultural norms and values, social support systems, and policies affected well-being of the elderly population in Asia (Hermalin, 2012), which is the similar to the situations in Thailand (Knodel, Prachuabmoh, & Chayovan, 2013). By the concept of seven dimension of wellness (Chobdee, 2015), "wellness" is the full integration of states of physical, mental, and spiritual well-being that includes social, emotional, spiritual, environmental, occupational, intellectual and physical wellness. Each of these seven dimensions act and interact in a way that contributes to quality of life.

Spiritual well-being is a component of health-related quality of human life (Bredle et al, 2011). There are many definitions of the spiritual well-being i.e. Ebersole & P. Hess (2013) defined as "Spiritual well-being is an expanded sense of time in relation to the quality of life"; Aston University (2015) defined as "Spiritual well-being is about our inner life and its relationship with the wider world"; Mosby's Dictionary (2015) defined as "It is a sense of peace and contentment stemming from an individual's relationship with the spiritual aspects of life"; and University of California, Riverside (2015) defined as "A personal matter involving values and beliefs that provide a purpose in their lives". In this study, spiritual well-being of the elderly was defined as the ability to establish peace and harmony in their lives, the ability to develop congruency between values and actions, to realize a common purpose, and to be happy living.

The selected factors of this study were based on the social factors and biology factors that called "Biosocial factors" which from several related literature (e.g. U.S. Department of Health and Human Services, 2015; Knodel & Chayovan, 2008, etc). The biosocial factors included two factors that were biological factors and social factors. The biological factors were gender age, and use of prosthesis and orthosis. The social factors were social support and social interactions, and socioeconomic conditions variables that were marital status, education, religion, people who living with, activities with elderly club, working conditions, and adequate of income.

Research question is "What biosocial factors that affect spiritual health of the elderly living in rural area of Thailand?" The results of this study will be used as baseline data for health planner to promote elderly health and also recommended data for the related studies on Thai elderly well-being.

Research Objectives

To determine the biosocial variables that influences the spiritual well-being of the elderly living in Thailand.

Research Conceptual Framework

This paper focused on selected biosocial factors affect spiritual well-being of the elderly at individual level. Based on the literature review (e.g. U.S. Department of Health and Human Services, 2015; Unsanit et al, 2012; Knodel & Chayovan, 2008; Knodel & Saengtienchai, 2007; Barkan & Greenwood, 2003, etc.)
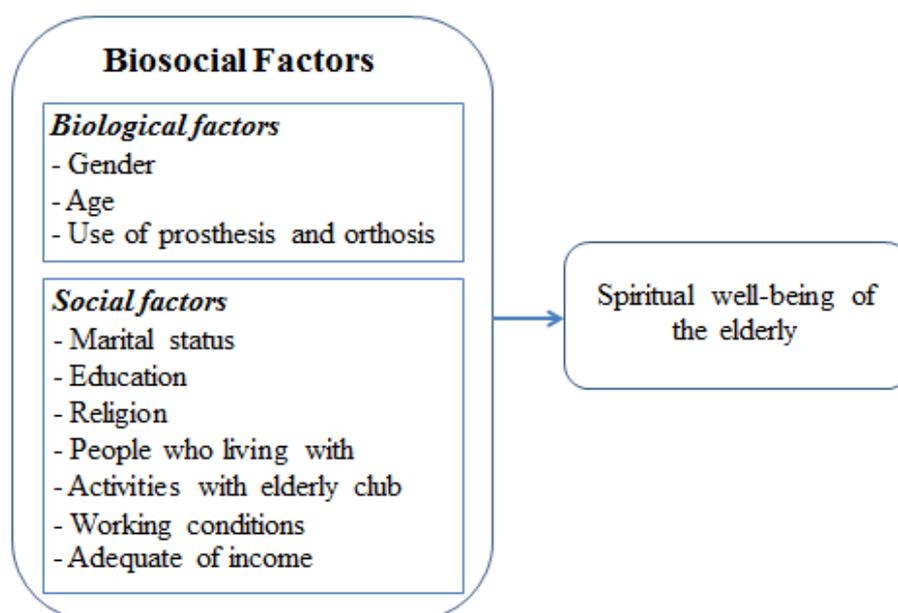
Figure 1: Research conceptual framework

Methodology

Participant
330 elders were recruited from 1,611 elders lived in Nongnae Sub-district, Phanomsarakam District in Chacheongsao Province of Thailand between August and October 2015. With use of the multi-stage sampling, the inclusion criteria were that elders had to be aged between 60 and 89 years, and they had to be able to hear, understand, and respond to the questions. Nongnae Sub-district was selected for the studied area because this community was awarded in elderly care by the Ministry of Public Health of Thailand in 2014.

Research instruments
The spiritual well-being questionnaire was constructed based on information from various sources such as the literature review, previous studies and suggestions from experts. The spiritual well-being questionnaire included: 9 items. Cronbach's alpha coefficient was used to test the reliability of the questionnaire. The reliability of questionnaire was 0.965.

The questionnaire for biosocial factors contained some biological factors questions concerning age, gender, and use of prosthesis and orthosis; social factors questions concerning marital status, education, religion, people who living with, activities with elderly club, working conditions, and adequate of income.

Biosocial factors were measured by questionnaire:
1) Gender; Gender was categorized into two groups: 1) male, and 2) female.
2) Age; Age was recorded age at the nearest birthday in year and categorized into three groups: 1) 60-65, 2) 66-70, 3) 71-75, and 4) 76-89.
3) Use of prosthesis and orthosis; use of prosthesis and orthosis was categorized into two groups: 1) yes, 2) no.

4) Marital status; marital status was categorized into four groups: 1) single, 2) married, 3) widow, and 4) divorce/separate.

5) Education; education was categorized into three groups: 1) illiteracy, 2) not completed primary school, and 3) primary school or higher.

6) Religion; religion was categorized into three groups: 1) Buddhist, 2) Christ, and 3) Islam

7) People who living with; people who living with was categorized into three groups: 1) living alone, 2) spouse, and 3) child or grandchild.

8) Activities with elderly club; activities with elderly club was categorized into three groups: 1) never, 2) sometime, and 3) almost every time.

9) Working conditions; working conditions was categorized into four groups: 1) not working, 2) household work, 3) work with compensation, and 4) social work without compensation.

10) Adequate of income; adequate of income was categorized into two groups: 1) yes, and 2) no.

Data collection and Analyses

Data was collected by personal community-based interviews. Data on all variables were analyzed by descriptive statistics using frequency, percentage, arithmetic mean and standard deviation. One-way ANOVA and t-test were used to analyze the differences in the average between the variables in biosocial factors and spiritual well-being of the elderly at $p <$ .05 level of significance.

Results

The biological factors of the 330 elders showed 245 (74.2%) of them to be females; to be aged between 76 and 89, 83 (25.2%) with a mean age of 71.26 years (SD 8.06); and to be use of prosthesis and orthosis, 213 (64.6%). The results are summarized in Table 1.

Table 1
Analysis of frequency and percent in biological factors (n= 330)

Biosocial factors	Frequency	Percent
Gender		
- Male	85	25.8
- Female	245	74.2
Age (Yrs.)		
- 60-65	82	24.8
- 66-70	79	23.9
- 71-75	70	21.2
- 76-89	83	25.2
Use of prosthesis and orthosis		
- Yes	213	64.6
- No	117	35.4

The social factors of the 330 elders showed 245 (74.2%) of them to be married; to have graduated from primary school or higher, 169 (61.2%); to be Buddhist, 299 (90.6%); to live with child or grandchild, 272 (82.4%); to have activities with elderly club almost every time,

267 (80.9%); to be not working, 216 (65.5%), and to have adequate of income, 312 (94.5%). The results are summarized in Table 2.

Table 2
Analysis of frequency and percent in social factors (n= 330)

Biosocial factors	Frequency	Percent
Marital status		
- Single	8	2.4
- Married	211	63.9
- Widow	102	30.9
- Divorce/Separate	9	2.7
Education		
- Illiteracy	46	13.9
- Not completed primary school	115	34.8
- Primary school or higher	169	61.2
Religion		
- Buddhist	299	90.6
- Christ	22	6.7
- Islam	9	2.7
People who living with		
- Living alone	32	9.7
- Spouse	26	7.9
- Child or grandchild	272	82.4
Activities with elderly club		
- Never	14	4.2
- Sometime	49	14.8
- Almost every time	267	80.9
Working conditions		
- Not working	216	65.5
- Household work	39	11.8
- Work with compensation	46	13.9
- Social work without compensation	29	8.8
Adequate of income		
- Yes	312	94.5
- No	18	5.5

Mean of elderly spiritual well-being showed all items were rather in high level. Which found that item no.6 about religious activities was in highest mean score (Mean=4.8909) and item no.4 about cooperation with community activities was in lowest mean score (Mean=4.5697). The results are summarized in Table 3.

Table 3
Analysis of Mean, SD. and Level of spiritual well-being of the elderly

Content if item	Mean	SD	Level of spiritual well-being				
			Habitual	Frequent	Rarely	Few times	Never
1. Emotional control	4.8848	0.3557	296 (89.7)	30 (9.1)	4 (1.2)	0 (0)	0 (0)
2. Pleased to others happy	4.7879	0.5027	274 (83.0)	42 (12.7)	14 (4.2)	0 (0)	0 (0)
3. Being a valuable person	4.7667	0.6640	282 (85.5)	31 (9.4)	7 (2.1)	8 (2.4)	2 (0.6)
4. Cooperation with community activities	4.5697	0.5700	201 (60.9)	116 (35.2)	13 (3.9)	0 (0)	0 (0)
5. Relation with others	4.7636	0.5040	264 (80.0)	54 (16.4)	12 (3.6)	0 (0)	0 (0)
6. Religious activity	4.8909	0.3823	302 (91.5)	20 (6.1)	8 (2.4)	0 (0)	0 (0)
7. Being independence in dependence	4.8697	0.3372	287 (87.0)	43 (13.0)	0 (0)	0 (0)	0 (0)
8. Value in life	4.6212	0.8570	271 (82.1)	9 (2.7)	34 (10.3)	16 (4.8)	0 (0)
9. Being at peace	4.7061	0.6941	269 (81.5)	34 (10.3)	18 (5.5)	9 (2.7)	0 (0)

The level of spiritual well-being of the elderly found 80% to be in very good level, 11.5% to be in good level and 8.5 to be in poor level. The results are summarized in Table 4 and Figure 2.

Table 4
Level of spiritual well-being of the elderly

Level of spiritual well-being	Score	Number	Percent
Very good	44-45	264	80.0
Good	36-43	38	11.5
Poor	24-35	28	8.5

Mean =42.861, SD =4.490, Min.=24, Max. =45
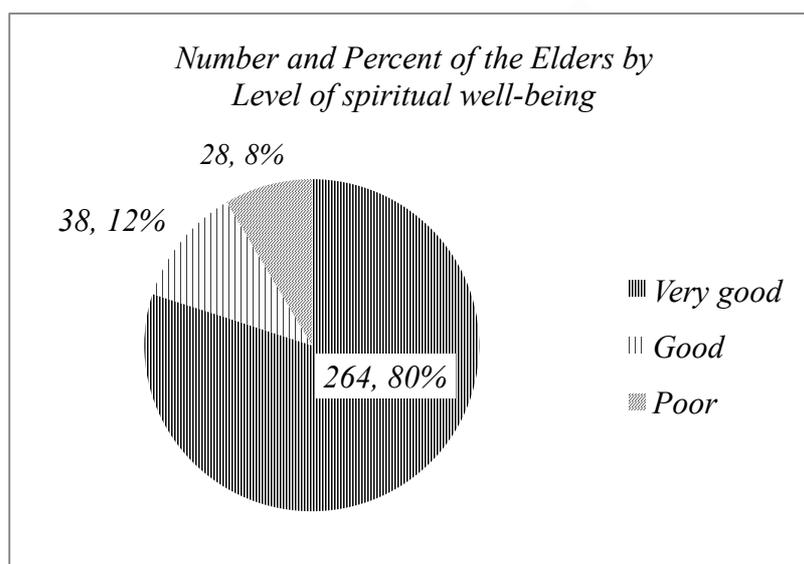
Figure 2: Level of spiritual well-being of the elderly

The biosocial factors regarding gender, use of prosthesis and orthosis, and adequate of income were revealed by t- test shown to affect elderly spiritual well-being where the values of t-test = -11.172, P-value = < 0.000; t-test = 10.800, P-value = < 0.000; and t-test = -8.693, P-value = < 0.000. The results are summarized in Table 5.

Table 5
Analysis of mean differences in gender, use of prosthesis and orthosis, and adequate of income by t-test

Variables		n	Mean	Std. Deviation	t	P-value
Gender	Male	85	37.365	6.104	-11.172	< 0.000
	Female	245	44.767	0.423		
Use of prosthesis and orthosis	Yes	213	44.944	0.231	10.800	< 0.000
	No	117	39.068	5.882		
Adequate of income	Yes	318	42.780	4.554	- 8.693	< 0.000
	No	12	45.000	0.000		

p<.05

The biosocial factors regarding age revealed by F- test to not affect elderly spiritual well-being where the values of F-test = 1.509, P-value = 0.212. While, marital status, religion, people who living with, activities with elderly club, and working conditions revealed by F- test to affect elderly spiritual well-being where the values of F-test = 16.016, P-value = < 0.000; F-test = 564.197, P-value = < 0.000; F-test = 8.346, P-value = < 0.000; F-test = 1912.721, P-value = < 0.000; and F-test = 467.933, P-value = < 0.000. The results are summarized in Table 6.

Table 6
Analysis of mean differences in age, marital status, religion, people who living with, activities with elderly club, and working conditions, by F-test

Variables	Sum of Squares	df	Mean Square	F	P-value
Age					
Between Groups	90.816	3	30.272	1.509	0.212
Within Groups	6540.771	326	20.064		
Total	6631.588	329			
Marital status					
Between Groups	851.844	3	283.948	16.016	< 0.000
Within Groups	5779.744	326	17.729		
Total	6631.588	329			
Religion					
Between Groups	5141.593	2	2570.797	564.197	< 0.000
Within Groups	1489.994	327	4.557		
Total	6631.588	329			
People who living with					
Between Groups	322.073	2	161.037	8.346	< 0.000
Within Groups	6309.515	327	19.295		
Total	6631.588	329			
Activities with elderly club					
Between Groups	6109.358	2	3054.679	1912.721	< 0.000
Within Groups	522.230	327	1.597		
Total	6631.588	329			
Working conditions					
Between Groups	5381.792	3	1793.931	467.933	< 0.000
Within Groups	1249.796	326	3.834		
Total	6631.588	329			

p < .05

The multiple comparisons test of significantly variables revealed by Sheffe's test, showed mean differences among significant variables. Marital status was found the difference between the elderly who married and widow. Education was found; 1) the difference between the elderly who graduated from primary school or higher and the elderly who illiterate, 2) the difference between the elderly who graduated from primary school or higher and the elderly who not completed primary school. Religion was found; 1) the difference between the elderly who Buddhists and Christians, 2) the elderly who Islam and Christian. Working conditions was found the difference between the elderly who were in every group of working conditions, i.e. the elderly who not working and household work, work with compensation, and social work without compensation. Activities with elderly club was found the difference between the elderly who were in every group of the activities with elderly club, i.e. elderly who never had activities with the elderly club, using sometime with the elderly club, and using almost every time with the elderly club.

Conclusion and Discussion

Biological factors found two variables were affected to spiritual well-being of the elderly, i.e. gender and Use of Prosthesis and orthosis. (Age was not affected spiritual well-being of the elderly.) Social factors found seven variables were affected to the elderly spiritual well-being, i.e. marital status, education, religion, people who living with, activities with elderly club, working conditions, and adequate of income. The summary of statistical analysis was shown in Figure 3.
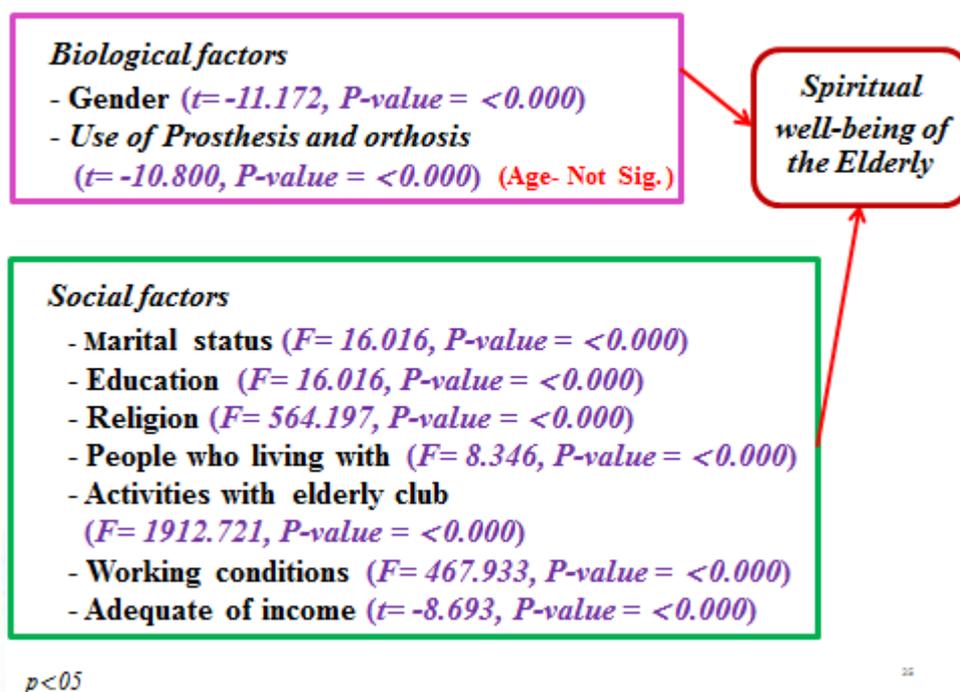
Figure3: Summary of statistical analysis

This present study confirmed the important of biosocial factors that affect spiritual well-being of Thai elderly, especially in the rural elders. The founding were consistent with the studies of some Thai researchers in the variables i.e. gender, use of prosthesis and orthosis, marital status, education, religion, people who living with, activities with elderly club, working conditions, and adequate of income.

Gender affected spiritual well-being of the elderly was consistent with the study of Smith & Baltes (1998) who reported that older men having higher levels of subjective well-being than older women. But opposite to the study of Muijeen (2015) who reported that gender differences was not affect mental health of the elderly.

Use of prosthesis and orthosis was consistent with the study of Vajirapetchpranee (2010) which reported that able to do his or her own routines were related with their happy-living of the elderly. But opposite to the study by Chaimail, Khaonuan & Songsiri (2012) which found no association between ability in daily living and quality of life among Thai elderly.

Marital status affected spiritual well-being of the elderly was consistent with several studies that have been carried out to examine how marital status to affect spiritual well-being of the elderly i.e. Thumcharoen (2012); Muijeen (2015), etc. which reported that marital status was influence on the level of happiness and also spiritual well-being of the elderly.

Education affected spiritual well-being of the elderly was consistent with the study of Knodel, Prachuabmoh & Chayovan (2013) which suggested that "education is an important factor in the wellbeing of older persons with adequate skills in reading and writing being critical for access to information and employment opportunities".

Religion affected spiritual well-being of the elderly was consistent with Kirby, Coleman & Daley (2003) who stated the founding of some researchers that spirituality and religion have been an important part in many older people's lives, and positively correlated with physical health. Moreover, Jianbin & Mehta (2003) which reported that religion was affect subjective aging in positive and negative ways, and Manasatchakun et al (2016) which reported that religion important to healthy ageing in the Isan-Thai culture.

People who living with affected spiritual well-being of the elderly was consistent with the study by Manasatchakun et al (2016) who found that a person who living with was affected healthy ageing in the North-eastern region of Thailand. Moreover by the study of Knodel, Prachuabmoh & Chayovan (2013) which reported that children who elderly living with are the main source of their income.

Activities with elderly club affected spiritual well-being of the elderly was consistent with the study of Thanakwang et al (2012) who reported that active engagement in social activities was related with well-being among Thai elderly.

Working conditions affected spiritual well-being of the elderly was consistent with the study of Calvo (2006) who summarized that working may affect positive physical and psychological of the elderly. Moreover, longer working lives will help most people maintain their overall well-being. Besides Muijeen (2015) and Thumcharoen (2012) which reported that working condition was influence on the mental health and level of happiness of the elderly.

Adequate of income affected spiritual well-being of the elderly was consistent with the study of Rattanamongkolgul, Sritanyarat & Manderson (2012) which suggested that family economic status was influenced quality of aging preparation, and Muijeen (2015) who reported that income of their own was influence on the elderly well-being.

Mean of spiritual well-being of the elderly who had inadequate income higher than who had adequate income was opposite with the most studies of Thai researchers (Tomana & Srisuchat, 2005; Hansakul & Porsing, 2012; Chiewpattanakul, Adisornprasert & Yansomboon, 2011; Sumalrot & Suksawai, 2015; Thanasupanuwech, 2010). Researcher collected the qualitative data by in-depth interview 20 elders who the committee of the elderly club to describe this founding. The result of elder's interview indicated that in the rural community of Thailand especially in the studied area, elderly could have their happy living in their community even though they have not money. It was according to the social context of the rural community and the elderly lifestyles based on the sufficiency economy philosophy which conceived and developed by His Majesty King Bhumibol Adulyadej of Thailand.

Age was not affect the spiritual well-being of Thai elders is opposite with the most study of Thai researchers. (Sukadisai, Maput & Kittiyanusan, 2014). It may because of the older elders who the samples of this study were also have the social support from the elderly club and still have activities with the elderly club as same as the younger elders.

The results suggested that various biosocial are the important factors to affect spiritual well-being of the elderly living in Thailand. In particular, some factors should be studied more clearly in different part of Thailand. In addition, spiritual well-being and healthy aging activities should be developed to encourage among the elderly people in Thailand.

Acknowledgement

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Comparison of Health Care Model for the Elderly: Thailand and Japan

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Abstract
This research aims to compare the health care model for the elderly in Thailand and Japan. Data collect consisted of interviews of providers and foundation analysis. Comparing the patterns of health care for the elderly, as well as most of the elderly long-term care policy, elderly care by family and community, welfare for elderly, good practices, architecture, artifacts for the elderly, but are different in some details, for example Standard of care of the elderly in Japan are the same for both public and private. The elderly are involved with the cultural context. It has to be a long-term care system for the elderly. Using family and community-based care, A society of elderly seniors doing activities together, training volunteers to care for the elderly, elderly care business contract and a network of care for the elderly.

Key words: Health care model, Elderly

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Introduction

In the last two decades. Developing countries and the developed countries. Rapid changes in economic and social conditions. Changes in the labor sector, the manufacturing industry from agriculture is increasing. (The Port Authority of Thailand, 2005) Changes in economic and social impact on the population, causes the death of Thai people. The transition of health problems from infectious diseases to chronic diseases caused by the behavior is most like cardiovascular disease, high blood pressure, diabetes, cancer and death from any accident (Jitapunkun, S. 1998; Piromchai, J. 1999) Thai population is increasing, according to the office of the national economic and social development. Thailand found that elderly into society then. Because the population aged more than 10 percent since 2005, and the ratio is expected to increase to 10.7 million elderly people, or 15.28 percent in the year 2020 and in 2030 will increase to more than two-fold 25 percent of the country. "Aging society completely" (Foundation of Thai Gerontology Research and development institute, 2012) advanced to the elderly need to focus both on health care that will contribute to a better quality of life. In health care, the elderly, and then focus on the elderly healthy enough. And the ability to care for themselves. Including activities of daily living without the burden of their family members or relatives (Keleher & Murphy, 2004), so it should be reviewed. Compare health care model in the highly populated countries such as japan the elderly. To streamline the process and improve the quality of services and care of the elderly, encouraging quality of life continues and sustainable.

Research Methods

The study reviewed research papers and reports on patterns of health care, interviewing providers in health facilities in Japan 10 purposively selected. And site visit two prototype organization Sozokai Medical Plaza and Nihon University ITABASHI Hospital. Instruments used in the research includes interviews and questionnaire. The questionnaire used to interview   service   providers to get information about health care, good practice survey questionnaire in order to analyze organizational model. Benchmarking is the process of data collection, data analysis by content analysis.

Conclusion

The analysis underly the organization of the second Sozokai Medical Plaza and Nihon University ITABASHI Hospital with good practices Sozokai Medical Plaza follows a policy of long-term care for the elderly with a clear mission to care for the elderly. Managed Zoning, building Care for the environment as is appropriate. For example, the bedroom and the bathroom floor with a ramp system for the elderly as well. Forward elderly home care to the elderly. There are activities for the elderly, according to the festival. For seniors boxes and mental health as well. For Halloween Open House Tea (Tea House), and provides care for the elderly and bed overnight. Stay for a short time and returned to the day care. A welfare system for the nurse. As a place for child care. Has organized volunteers to care for the elderly. As a volunteer No compensation. A multidisciplinary team care for the elderly. Seniors over the age of 100 years, the government has awarded. Nihon University ITABASHI Hospital had policies and a clear mission. A multidisciplinary team composed. And a focus on human resource development has visited a Home Health Care, emergency unit with modern appliances. There is a good environment for clients.

Health care model for the elderly in Thailand and Japan

Japan has the statutory health insurance (Health Insurance Act) since 1922 and Health Act "national" citizens nationwide universal coverage since 1961, which coincides with the first year of the plan of economic and social development in Thailand .Then there is the "system" continues to include. "Elderly Health Care System" since 1983. The care system is tied to the health care system. When the cost of caring for the elderly is very high. Began to build "Sustainability" of the system by an enactment. "Long-term Care Insurance System" since 2000 and found that the elderly over age 75 years, a group of health care needs and costs very high to begin with, "Health insurance system for the aged over 75" in 2008, and Japan recently celebrated the 50th anniversary of health insurance coverage in 2011. Health care model for the elderly in Thailand and Japan too, mostly as a long-term elderly care policies. Elderly care, family and community. Welfare for the elderly, good Practice/ Architecture/ inventions for the elderly.

Elderly care by families and communities in Thailand and Japan

Have been implemented to reduce the reliance of the elderly and the elderly to be self-reliant, while the number of elderly is increasing and the elderly aged more enduring. You need a long-term care for the elderly. More clearly the family and community-based care. A society of elderly seniors doing activities together. A care in everyday life. Basic Health Care Management Training Volunteers care for the elderly. To knowledge Understanding and motivation to care for the elderly. Business services for the elderly. A network of elder care.

Discussion

Two prototype organization is an organization Sozokai Medical Plaza and Nihon University ITABASHI Hospital with good Practices, a good model to adopt in the care of the elderly, which makes health facilities and communities. Can be applied to reduce the time to try a form consistent with the findings of Yuvadee Rodjarkpai, Kunwadee Rojpaisarnkit and Piboon pongsanpun (2006). Quality improvement model for and health care services providing to HIV/AIDS patients and for developing appropriate preventive strategies among HIV/AIDS patients at Rayong Hospital. The five organization later adopted by making operations more quickly. And have confidence in the operation. Health care model for the elderly in Thailand and Japan, as well as a majority of the elderly long-term care policy. Elderly care, family and community. Welfare for the elderly good Practice/ Architecture/ inventions for the elderly, but there are differences in some details, for example. The standard of care of the elderly in Japan is the same in both public and private. Elderly care is a cultural context involved. As day meet in the Tea House, which is consistent with the findings of Buttumchalearn Kanitta and Sasun Sirepun (2009) study. Long-term care system: a comparative analysis to policy recommendations. Found that the care system of various levels of government have different roles depending on the basic concepts of each country.

Recommendations

Elderly health care model. Family is very important to care for the elderly. Care system should focus on the family, because it is long-term care provided to the elderly. And the Alliance for the operation of the network and the community should have the exchange and dissemination of good practices and good practices for the good of others applications. The agency will be able to enhance the work, but to take the good Practices of others and not to copy all of them. Should be adapted to suit the context of their own organizations. Create a master development communities and families to care for the elderly. A comparative study of health care model for the elderly in Thailand and other countries.

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Complex Mathematics Tools in Urban Studies

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Abstract

During centuries, the Theory of Architecture and Urbanism has been trying to describe and understand complex realities: the concept of beauty, how creative process are develop, or the meaning of a city, for example. In order to achieve explanations, sometimes we have built theories based in social issues; in other occasions we turn to Art with the aim of finding answers. And sometimes, we also use Science as a tool of understanding. About this last resource, it is possible to verify how the use of a rational deterministic point of view, has produced from buildings to urban models. Nevertheless, in the last decades it is possible to find approaches to Architecture and Urban studies based in a different kind of science, the one which we usually know in general as "science of complexity". In this paper we would like to reflect about how graphs theory allow us to have an instrument of analysis and understanding of complex systems such as old towns. We will see how in any urban tissues in which is difficult to find an order, traditional science tools seem to be incapable to describe the real complexity of them. Using graphs, then implementing a special algorithm, and finally with a proper graphic tool we are able to visualize the impact of different matters in these systems. To analyze the potential but also the limits of this kind of studies, is the aim of this paper

Keywords: *Complexity, Mathematics, Urban studies, architecture*

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Introduction

History shows us that new scientific ideas are never developed *in vacuo*, but on the contrary they are in many senses the result of a *global understanding* about ourselves and our place on the universe: this is the kind of knowledge that traditionally has been named as *Philosophy* by the western culture [1]. For this reason, it shouldn't be too difficult for us to accept that there is a close relationship between the world of science, and other expressions of culture and creation, such it is art for example, or architecture [2].

But despite this reality, the fact is in many senses we live in a kind of a dual world, called by Fuller for example, the "two cultures world" [3], an expression also used by other authors in different fields [4]. The fact is that it seems to persist the idea of a world of "Scientifics", and perhaps in opposition to that world, or at least separated from that world, the universe of what we could called *humanistics*. Latour, among others, finds this situation senseless [5], but if we take a look at many official curricula in many academicals institutions, like my University for example, we will hardly find spaces for multidisciplinary experiences, such IAFOR promotes. Cecil Balmond, summarized this situation with this words: "*A classical understanding of engineering conspires in order to keep science away from art*" [6].

Architecture supposes as a discipline an ideal area in this sense. In its own nature, it exists a hybrid condition which allows to place the role of an architect in a blur territory between different kinds of knowledges, between science and art. Perhaps thanks to that situation, it has been possible for someone belonging to a humanistic field such it is Theory of Architecture, will develop different experiences of research with colleagues belonging to the Department of Mathematics. This paper is the result of some of those experiences, which have in common the use of complex mathematics tools to understand some aspects of the territory and of the cities: in this case, those tools come mainly from the *network theory*.
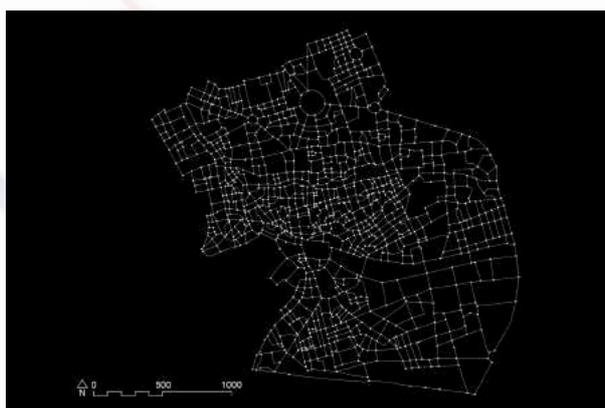
Figure 1: City as a network. Murcia Old Town

Evolutionary algorithms

The so called "neural network algorithms" are a kind of evolutionary algorithms inspired in the way real neural networks work in living beings: they "learn" progressively [7]. Used mainly in Artificial Intelligence, they may constitute a heuristic method to find a simpler system from a complex one which is able to keep the *same topology* as the primal system. In Figure 2 we have an illustration of this idea. The original face on the left may be described by a cloud of thousands of points, which is a complex system, and for that reason something difficult to work with and even to understand. In order to do so, that would be very convenient to find a simpler system formed by, for example, only 20 % of the original points. But the question is, would it be the same face? That's precisely what this tool may achieve: it is able to propose a new system formed by a network of much less points than the original, but in order to keep the same topology as the original objects, those are not just any point: they are *special points* in which the core condition of the primal system remains.
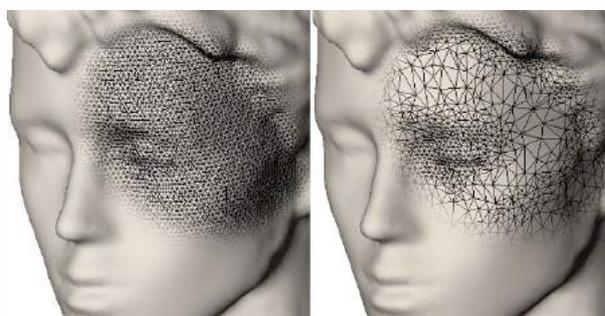
Figure 2: Mesh simplification

The objective of this research project was to investigate the possibility of applying this idea to complex situations that we could find in a larger scale: cities or territories. With *complex* we mean urban concentrations without precise limits or without a recognizable geometry patterns. These kind of systems are not easy to be understood by the use of "classic" architectonical geometrical tools, because their level of complexity and the lack of hierarchy make very difficult to identify the critical points, and consequently to decide where to act. In those context, this model could be useful to find a new simpler representation of that reality, formed by key points as we have seen with the face. As long as they are relevant points, we may think they play a strategic role for the network, and therefore, we may understand that they may indicate us where to apply some actions that will affect the whole system.

One field in which this research line has been applied is based in the idea of **density**, and its relationship with the public space. With the use of a neural network model we try to redefine from that point of view some examples of *urban sprawl* developed in the Mediterranean coast of Spain in the last decade. It is not necessary here to insist once again on the questionable results of this urban model: in terms of environmental impact, efficiency in energy or transport, or social sustainability we may agree it is a quite deficient one. Therefore there is here a real opportunity to debate about those settlements and to suggest some proposals.

What we have in this case is a complex system formed by hundreds of isolated houses in which it is difficult to find a global geometrical order, and in consequence to know where to act. In order to understand it on the first place, and then to handle with this system, we model it as a two dimensional triangle mesh in which each node is a

house. Applying a network optimization based on the Growing Neural Gal (GNG) model, we obtain a simpler system which - as we said - keeps the same topology as the original one, because it is formed only by critical points. Those are precisely the nodes in which we concentrate the density of a cloud of houses from the original system. This is not the place to explain the detail of the mathematics methodology, especially because it can be checked in other works [8]. But we can analyze the process from a critical point, and then we can conclude that this mathematical tool, offers to the urban planners a promising way to work with the geometry of these kind of systems. It constitutes a way to achieve a handy simplification from reality, but at the same time keeping the level of conceptual complexity that a self-organized model like this one implies.
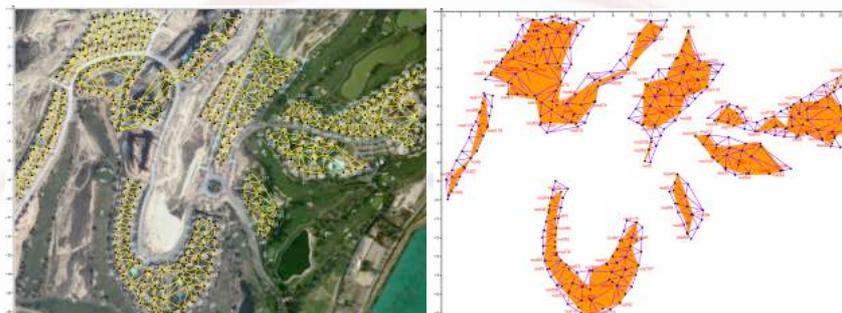
Figure 3: Original and Final mesh

In this case, we have read those points in terms of density as we said, but those critical points can also be understood in other meanings. Of fact, from a conceptual point of view, they are just core points in which some system can be simplified. And therefore, it is possible to use this methodology to design urban transport networks based in this kind of self-organized model [9], where the points will represent nodes of transportation; or for example, in a more wide approach, we can use this methodology to identify the key nodes – the *pressure points* using the terminology – where we may propose actions to activate the whole system, under the philosophy of what we call *urban acupuncture.* [10]

Network theory and the city
These previous experiences show that it is possible to describe the city – or any urban reality – as a system formed by nodes interacting and connected by edges, something which on mathematic language is called a *graph*. We have also seen that it may be quite interesting to distinguish on those systems the relative importance that some points have for the whole system.

Our proposal is then to consider an urban network as a specific type of complex network, or in other words, a *primal graph*. We are interested in using the primal graph as a data structure because is a very handy model to describe the street pattern of a given city. And once we have that structure, it is possible to create mathematics tools which may identify which are the key nodes for the system, and even more important, how some transformations in some nodes may affect to the whole system. (Figure 4.)
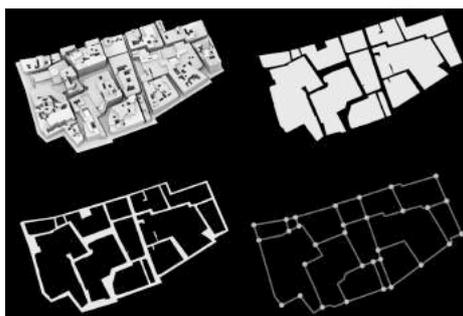
Figure 4: Primal graph configuration

In our research we wanted to use this idea to test the commercial activity of a real city, in this case the city of Murcia, on the South East of Spain (350.000 inhabitants). As we have anticipate, our approach begins with a process to convert the real urban streets into a primal graph representation, and then assigning to the nodes the kind of information we want to take in count in order to evaluate their importance in the system, which in our research is the commercial activity.

In order to stablish a ranking of nodes from this point of view, we propose an adaptation of the PageRank model that we call *APA (*Adapted PageRank Algorithm). The resulting data matrix, and the numeric details can be checked at [11], but here we can say that this process allows us to have a very clear and expressive representation of the *hot* and *cold* areas on the city from a commercial point of view. (Figure 5.)
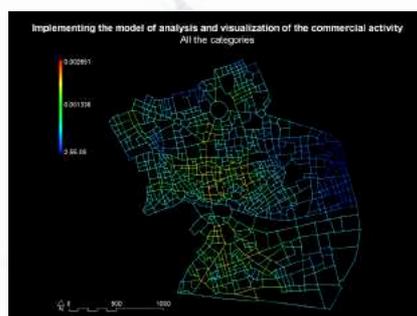
Figure 5. Visualization of the commercial activity

One of the most interesting aspects of this kind of approach, is its dynamic condition. As we know, the commercial activity in a town is constantly changing, and this methodology allows us to modify the information in a very efficient way. Once we have built the primal graph, the allocation of the information to the nodes is quite agile, and for this reasons it seems an interesting application to monitor the commercial activity with dynamic data bases. But not only. The APA also may allow us to propose simulations of the impact of new activities in some area, showing the influence in the area on the new activity. (Figure 6)
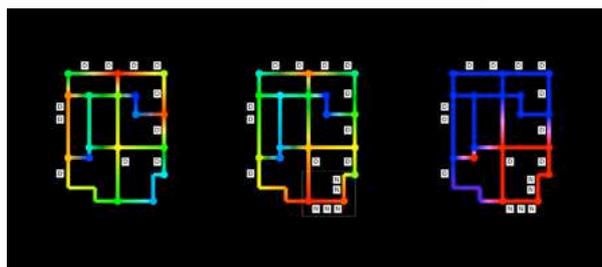
Figure 6. Study of the impact of new commercial activities

And similar simulations may be carried out in order to evaluate for instance an inner urban reform plan, allowing to visualize the impact that has on the network the development of new actions, something which could be checked in its mathematics details in [12].
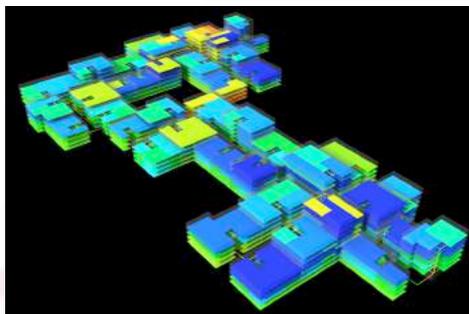
Figure 7. Study of new inner urban reform plan

Conclusion

Understanding a city as a complex network, allow us to use complex mathematics tools from the network theory in order to handle with some aspect of it. Obviously, these are not the only possible points of view when you work with a city, but the truth is they may complete other ones. And as we have seen, the results may be considered promising in many aspects.

But the kind of evolutionary algorithms we use, promote results which are non-deterministic, and this may make us question what is the role of the urban planner in this process. About that, we have to conclude that is as relevant as always has been in this matter. On the first place, at the beginning of the process, taking the decision about what to analyze and for what purpose, decision which of course is the result of a previous conceptual debate. Then, during the process, is the planner who evaluate and measure the evolution of the system. And finally, it is also us who at the end interpret the resulting data from a quality point of view.

In conclusion, we think that the use of some complex mathematics tools in urban studies, in particular the ones we have explained, allow to open a vast opportunity for understanding many aspects of the city, with the aim of giving us certain arguments to propose creative actions.

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A Local Investigation into the Attitude Towards Global Products in Karachi

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Abstract
This research investigates the attitude of local consumers of Karachi towards global products with respect to their age and gender. This study involves in-depth understanding of the attitude of local consumers towards global products through secondary sources as well as measurement of these variables through primary data collection from adult consumers located in Karachi. The research methodology involves quantitative techniques and data collection from 212 respondents on Likert scale by developing standard questionnaire. Correlation was run for 6 product categories to test the relationship between age and attitude towards global products while independent t-tests were run for each of the 6 product categories to understand the attitudinal difference towards global products based on gender. The results suggested that there is a negative relationship between the age of the local consumers and their attitude towards global products. No significant difference was found in the attitude of male and female consumers towards global products.

Keywords: local investigation, attitude, global products, karachi

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Defining keywords

Local investigation	Investigation is known as the act or process of investigating or the condition of being investigated. It is a systematic, minute and thorough attempt to learn complex or hidden facts**. (Investigation. (n.d.). Dictionary.com Unabridged)** In the context of this research, local investigation is the investigation conducted in Karachi which is the locality of the researchers**.**
Attitude	**(Cherry, n.d.)** Define attitude as a learned tendency to evaluate things in a certain way. This can include evaluations of people, issues, objects or events. Such evaluations are often positive or negative, but they can also be uncertain at times. For example, you might have mixed feelings about a particular person or issue. Researchers also suggest that there are several different components that make up attitudes. 1. An Emotional Component: How the object, person, issue or event makes you feel. 2. A Cognitive Component: Your thoughts and beliefs about the subject. 3. A Behavioral Component: How the attitude influences your behavior
Global Products	Global products are made with similar specifications and packaging for consumers from around the world Global Products are distributed and marketed in many countries around the world. **(Consumer, n.d.)**
Karachi	It is a city of Pakistan which is a Muslim republic that occupies the heartland of ancient south Asian civilization in the Indus River valley and was formerly a part of India. Developed as a trading center in the early 18th century, it passed to the British in 1843 and was the capital of newly independent Pakistan from 1947 until 1959. **(Unabridged, 2009)**Karachi is the largest city in Pakistan, in the southeastern part of the country, on the Arabian Sea near the Indus River delta; Pakistan's main seaport and industrial center. **(Karachi, n.d.)**

Introduction

In the era of globalization, distances have shrunk and people are coming closer to each other. International trading, investments and cultural exchanges have given rise to an interconnected world which is referred to as the global village. Most of the countries have resorted to globalization in order to boost their economy, leaving behind any bitter past experiences they have with other nations. Nations now try to raise capital and fortify their stand in international trade, rather than hosting a war. Thus, globalization has induced international peace and security in a big way.

As these changes in the world economy take place businesses are limiting their focus on customization of products to match local needs and are increasingly shifting towards developing global products to serve customers around the globe. These global products give the businesses a competitive advantage through economies of scale which is passed on to the consumers in the form of low-prices. As the products become global their reliability estimates also increase and people start associating them with quality and advancement. For all these reasons well-managed companies around the world have revised their business structures and are adding more and more global products to their portfolios every day.

However, economic aspect is just makes up just a small part of globalization phenomenon**. Bacsu, J. R. (2007)** studied globalization from various angles. He showed that citizens possess significantly different attitudes toward the political, cultural and economic aspects of globalization, and so operationalizing the concept in terms of its economic effects alone is insufficient for most purposes. This means that while deciding on buying global products consumers do not just look at the monetary side of the equation but also take into regard other benefits these products might offer. Since monetary benefits are not the only one at play different groups of consumers can be expected to have different reasons and hence different attitudes towards global products.

The current market scenario and successful globally oriented portfolios might lead one to anticipate a positive attitude for global products around the globe however that may not be the case. Attitudes are shaped by values and values in turn are shaped by experiences, surroundings and personal goals and hence they differ from person to person. Such different values and resulting attitudes towards Global Products make it difficult for the companies to reach at specific decisions about their product positioning **(Kotler, P. & Armstrong, G. 2009).** On one hand they can reap the benefits of globalizing their products if their products are received well by the customers but however if the customers reject these global products the companies have a lot to lose as well. Abandoning the production of a global product is not as easy as shutting down the production of a local product. Huge investments in global products make them very tricky to execute and difficult to manage and hence detailed insights about the attitudes of consumers in a particular market are needed before making the decision of introducing a global product in that market.

With consumer spending in Pakistan continuously on the rise (Chart-1) marketers can simply not ignore the potential of growth. With increasing competition among companies, consumers in Pakistan are becoming more informed, sophisticated and demanding. When they spend money, they want value for it. Global firms can also exploit this potential to a large extent if consumers in Pakistan show a positive

attitude towards global products. It is important to note here that attitudes cannot be changed and neither should marketers attempt to change them because they are formed over a long period of time and due to the influence of various permanent forces like family, values, groups etc. Therefore only existing attitudes should be understood thoroughly and should be taken advantage of.
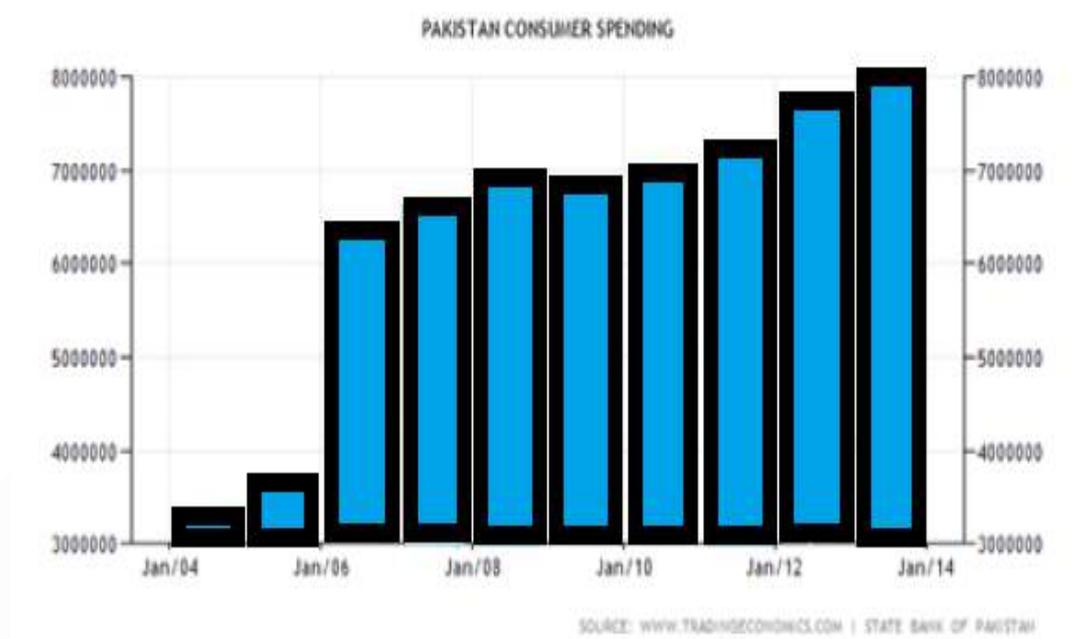
According to a survey conducted by Nielsen Corporation in 2011 the top brand in Pakistan is Nokia. Nokia is a global mobile brand which has been in Pakistan for over 10 years. Similarly the top most beverage brands were Pepsi and Coca-Cola. In other consumer segments too global brands were far ahead local brands. Examples of these segments include salty snacks, shampoo, soaps and cell phones. Some of these brands have been around in Pakistan for several decades.

Rationale
The study of the attitudes towards Global Products would help managers segment the local market of their products accordingly. This segmentation of the market would help them in deciding the category, quantity and positioning of the product before introducing it in the market. The study of the relationship of attitudes towards global products with socio-demographic variables would also explain how these attitudes vary between different groups of consumers. These differences can play a crucial role in predicting the acceptability and success of different categories of Global Products. For example: while a globally produced teenage dress might be a hit in the local market, an office dress produced by the same company for adults might fail to gain any share. Our research will seek to provide a framework which will be used by the companies as a guideline before introducing a new market offering

Objectives of the research

The primary objective of the research is to understand the attitude of different segments of local consumers of Karachi towards global products. The segmentation is based on age and gender.

The secondary objectives include:

Analyzing the factors that contribute towards this attitude formation like ethnocentrism, self-concept etc.

Determining the product categories where the attitudes of local consumers are more positive towards global products.

Hypotheses

H1: Local female consumers will have a more positive attitude towards Global products as compared to Local male consumers.

Independent variable:

Gender
Group 1: Local female consumers
Group 2: Local male consumers

Dependent variable:

Attitude of Local Consumers towards Global Products

Controlled variables:

Educational Level: (Minimum O-levels/intermediate)
Age (18-45)

Explanation:

Globalization and global products are a manifestation of standardization and equality. This suggests that people who tend to favor an egalitarian society will have a higher regard and preference for global products as compared to local products. In Pakistan women face inequality on various occasions. According to a report by Human Rights Advocacy Clinic (Bettencourt, 2000)**,** women have to face discrimination and violence on a daily basis due to the cultural and religious norms that Pakistani society embraces. This means that women in Karachi will be much more inclined global products because these products offer them the equality factor they find missing in their own lives hence we posit that female consumers will have a more positive attitude towards global products as compared to local female consumers.

A research done by **Sanz De Acedo Lizarraga, M. L., Sanz De Acedo Banquedano, M. T & Cardelle-Elawar, M. (2007)** states that apart from other psychological reasons, Gender and age also affects the decision making of a person. It further argues on the fact that since our decisions are based on our individual beliefs, gender difference plays an important role in the formation of our attitude towards specified products. With that, we have established the fact that the attitude towards global products will be different for both males and females.

This research paper also states that these changes in attitudes can be due to the gender-related social norms and stereotypes. With that said, we know that women are subject to discrimination and atrocities in our society. That is why we wanted to find out that whether these gender-related social norms and discrimination affects their

preferences in any way or not. Therefore, we investigated for the difference in the attitude towards Global Products between genders and their possible reasons in our research.

H2. There will be a negative relationship between the age of the local consumers and their attitude towards Global products.

Independent variable:
Age of the Local Consumers

Dependent variable:
Attitude of Local Consumers towards Global Products

Controlled variable:
Educational Level: (Minimum O-levels/intermediate)

Explanation:
The second hypothesis assumes that the attitude of local consumers towards global products would become negative as their age would increase. This means younger people will have a more positive attitude towards global products as compared to elderly. This assumption is consistent with the notion that as a person becomes older his or her ethnocentrism or in other words the sense of pride and ownership towards the products produced or revised in his or her own country becomes stronger. We posit that as the preference for local products becomes stronger the preference for global products will decrease leading to a negative attitude towards global products.
Many researches in the past have taken into account the differences in the ages and their behavior separately and focused only on one of the age bracket. However, it would be interesting to know the impact of the age on the preferences of consumers towards global products. Age is an important factor which should be taken into account because when we talk about subjects' competence and experience, age is considered to be the most important factor affecting their decisions. (**Sanz De Acedo Lizarraga, M. L., Sanz De Acedo Banquedano, M. T & Cardelle-Elawar, M. (2007)).**

A study done by **Rafi, A., Ali, A., Saqib, S., Choudary, A. I., & Akhtar, S. A. (2012)** observed the behavioral patterns of the university students in Pakistan towards Foreign brands. The study, based on the responses which were collected only from the university students, did not take into account the changes in the behavior due to difference in age. We have, therefore, focused on the affect of age on the attitude of Local Consumers towards Global Products.

Literature review

Attitude towards global and local products:
Stavkova, J., Stejskal, L., & Taufarova, Z (2008) demonstrated through their studies that the most influential factors in product purchases across all commodity groups are the characteristics of those products and their perceived quality. In their research **Alden, D. L., Batra, R. & Steenkamp, J. E. M. (2006)** showed that perceived brand globalness is positively related to both quality of the brand and the prestige it brings, hence creating brand value.

Another study specific to China by **Warveni, J. (2010)** showed that consumers perceive global brands to have a better quality, durability, innovation, customer orientation, trustworthiness and after sales service than the local brands. According to this research local brands are also considered to be mismanaged.

Such findings are not unique to China. In many other countries also consumers tend to have a less favorable attitude towards their local products. **Bamfo, B. A.,(2012)** explored consumer preferences towards local products in Ghana. The findings revealed that although consumers in Ghana have some element of ethnocentrism they are not highly ethnocentric.

<u>Attitude in Pakistan and developing countries:</u>
Batra, R., Ramaswamy, V., Alden, D. L., Steenkamp, J. E. M. & Raamchander, S. (2000) showed that in developing countries non-local brands and especially the ones with western origin are perceived to have a higher quality than local brands. Due to this perception the research posits that people in developing countries have a higher preference for global brands rather than the local ones.
The results for Pakistan have not been quite definitive in this regard. **Khan, M. B. & Rahman, S. (2012)** showed that consumers in Pakistan perceive quality of local products higher than of non-local ones and hence tend to prefer local products over global products. However the study does not differentiate between the preference of local and global products as it varies across gender age and other socio-demographic variables.

Ger, G. & Belk, R. W. (1996) examined the effect of globalization on the developing world. Their findings indicate that increasing trend towards homogenization of world through globalization is leading towards people being more protective about conserving their local identity which in turn is leading towards people having a favorable attitude for both global and local products.
There are however many studies which contradict with the above mentioned studies. One such research was undertaken by **Sandhu, M. A., Rehman, A. & Mahasan., S. S (2013)** in Pakistan. The findings of this research show that despite the animosity feelings, strong national identity and ethnocentric beliefs, consumers in Pakistan judge U.S. products (non-local products) favorably and show willingness to purchase them.

Khattak, M. N. & Shah, T. A.(2011) also conducted a study in Pakistan in which they studied the effect of country of origin information on the attitude towards non-local products. The results showed that consumers in Pakistan have a highly favorable attitude towards non-local products and they feel proud on purchasing them. The effect of ethnocentrism was found to be operating at a moderate level.

Islam, N., Khan, P. R., Noreen, U. & Rehman, K. (2009) in their research also provide evidence for the above results. They conclude that no dimension of consumer ethnocentrism is prevalent in Pakistan. They propose that Pakistani consumers do not prefer local products over non-local products rather the purchase decision is influenced by the concern for social and emotional image.

Affect of age and gender:
In this study we propose that the attitude of consumers towards global products varies with their age and gender. Attitude of a person towards any product depends largely on that person's experience and exposure to that product. The experience variable changes as the person grows old while the exposure variable differs between genders. Gender has historically been used as one of the most basic variable for market segmentation. **Zuckerman, M. E., & Carsky, M. (1992)** in their research site the historical example of Walter Thompson in 1911 who attempted to target male and female writers by setting up separate copy writer groups for them.

Yasin, B. (2009) explored differences in male and female consumer's decision-making styles in Turkey. The mean differences between these styles were found to be statistically significant. Female consumers were more in agreement with the proposed decision making styles than male consumers. This shows that gender as a variable plays huge role in the consumption decision making and hence its effect on the attitudes must also be studied.
Psychological literature recognizes gender and age as variables affecting decision making process. **Sanz De Acedo Lizarraga, M. L., Sanz De Acedo Banquedano,**

M. T & Cardelle-Elawar, M. (2007) performed a large-scale statistical analysis which revealed significant differences due to gender and age in the perception of factors affecting the decision making process.
The research further proposes that while making decisions women assign more importance to the consequences deriving from their decisions; how their decision affects the environment around them, while men assign more importance to the fulfillment of the purpose for which they are making decision. Regarding the age, the research propose that youth place more emphasis on the social and emotional aspects of their decisions and with increasing age these factors decrease in importance.

Since women are considered to have a more consistently favorable attitude towards peace **(Yablon, Y. B. 2009)** it can be argued that they will consider globalization more important and hence will have a more positive attitude towards global products than males. **Ismail, Z., Masood, M., & Tawab, Z. M. (2012)** undertook a study to determine the preferences of non-local brands over local ones in Pakistan. Findings of the study indicated that percentage of women using non-local brands was higher than males however the difference between the two percentages was quite less and hence cannot be declared significant.

The relationship between age and attitude towards global products has also been a subject of interest in recent years. Many studies have been done to explore which age groups are more globally oriented. **Odil, R. (2006)** studied the attitude of Uzbek population towards globalization with respect to their ages. The findings of this research indicate that despite differences in the way they experienced shifting world dynamics, all age groups show a positive attitude towards globalization. The affect of age was not very pronounced.

Yu, Chunling. & Dong , Lily. C. (2010) studied how age differences contribute towards forming attitudes and perception about global brands in China. Their study indicated that global brands are primarily purchased to build the self-identity. Self Identity has two components personal and social **(Tajfel, H. & J, Turner 1986).**

According to the study global brands are used by the youth to build self-identity at personal or individual level while consumers in higher age brackets purchase global brands to build self-identity at the social level. The quantitative difference was not studied.

Rafi, A., Ali, A., Saqib, S., Choudary, A. I., & Akhtar, S. A. (2012) extend this result by adding the significant finding that even the higher quality and satisfaction provided by global products does not result in a positive attitude of young Pakistani consumers towards them. In this study favorable attitude towards global products is defined as a function of satisfaction, quality and value being derived from them **(fig-1)**. The definition however did not confirm with Pakistani consumers because despite recognizing non-local products as more satisfactory, valuable and of good quality the attitude of youth is more favorable towards local products than global products.

Conceptual Framework:
In the light of the above literature we propose the following model:
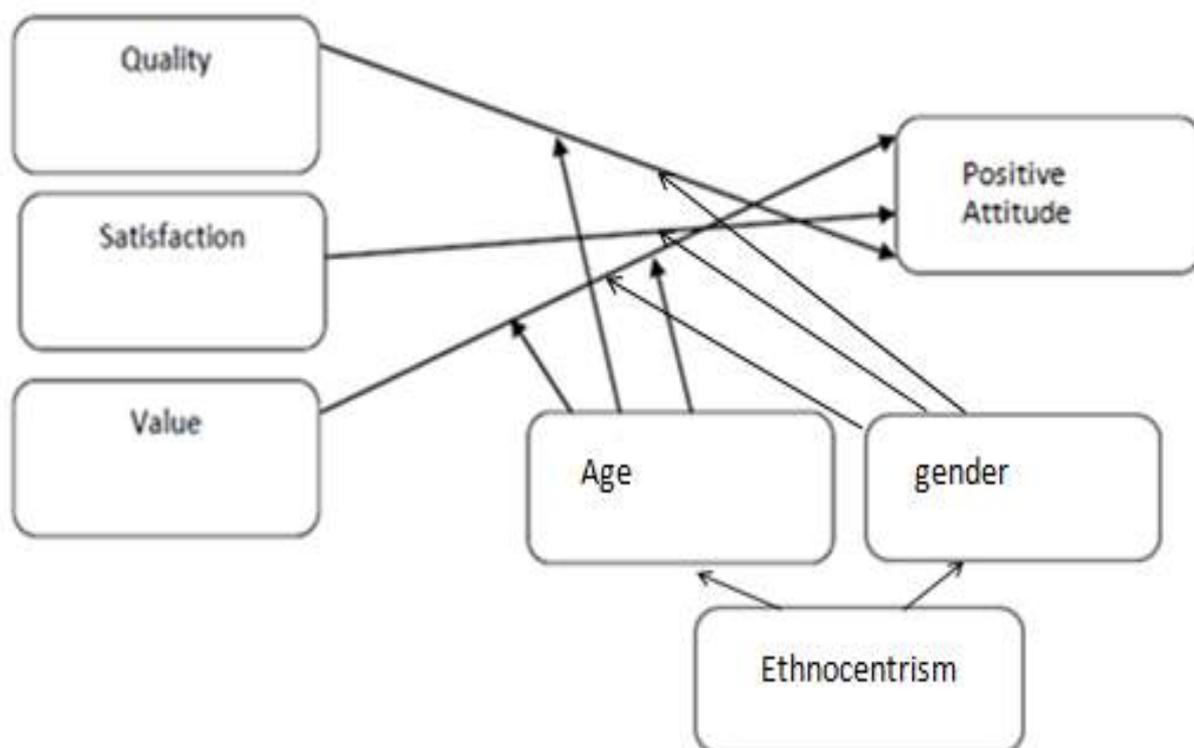
The above model shows that Positive attitude towards global products are a function of the quality, satisfaction and value derived from them but the perceived value, satisfaction and quality derived is also influenced by consumer ethnocentrism which depends on a consumer's age and gender. The attitude of consumers towards global products with respect to their age and gender will actually indicate how consumer the affect of consumer ethnocentrism on these variables.

Methodology
Consideration:
The present study is based on primary data collected through a survey questionnaire which was distributed virtually over the internet. The research was aimed at finding the affect of age and gender on the attitude towards global products for which a brief and short questionnaire was developed. This questionnaire formed the basis of the research and consisted of some socio-demographic questions like the age, gender and education level of the respondent and a series of multiple choice questions based on the Likert scale. These series of questions were then used to analyze the attitude of respondents towards global products on the basis of different categories like Entertainment, Home Furnishing, Clothing, Food, Lifestyle and Brands.

Sample:
The sample consists of the local population residing in Karachi. Karachi is a city of Pakistan which is a Muslim republic that occupies the heartland of ancient south Asian civilization in the Indus River valley and was formerly a part of India. The questionnaires were distributed over the internet on the basis of simple random sample. A total of 300 questionnaires were distributed, but only 212 were received back. Of a total of 212 responses received back, 206 were considered usable.

GRAPHIC PROFILING OF RESPONDENTS

Gender distribution of repondents
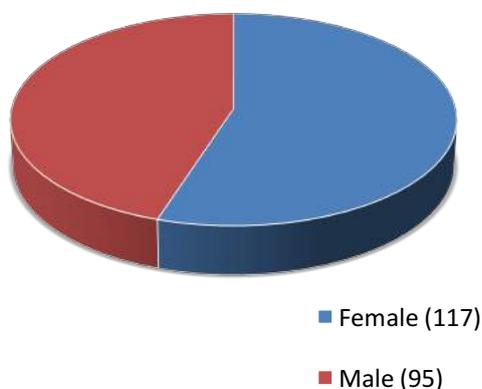
- Female (117)
- Male (95)

Age distribution of respondents

- 18-25
- 26-33
- 34-41
- 42-55
- 56-63
- 64-78
- 79-88
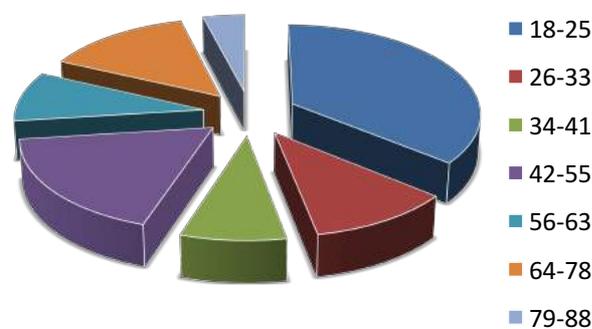
Table 1: Demographic Profile of the Respondents (n=206)

Characteristics		Number of Responses	% of responses
Gender	Female	111	54%
	Male	95	46%
Age	18-25	75	36%
	26-33	22	11%
	34-41	17	8%
	42-55	37	18%
	56-63	18	9%
	64-78	28	14%
	79-88	9	4%
	Total	206	
Education	Intermediate/O-levels	80	39%
	Above Intermediate/O-levels	126	61%

Statistics:

To analyze the responses gathered, descriptive and inferential statistics were used. The descriptive statistics were used in find the Mean and Standard Deviation of the quantitative variable of our research that is "AGE".

The first objective of this research was to find out the impact of age on the attitude towards Global Products and to analyze the impact of age on the attitude towards Global Products on the basis of the different categories mentioned earlier, Mean and Standard Deviation between the age of the respondent and his attitude towards individual category was calculated. Moreover, to find the correlation between the age and the attitude towards the specified category of Global Product of a respondent, Pearson Correlation Significance (1-tailed) was calculated.

The second objective of this research was to find the affect of gender on the attitude towards the Global Products of the consumers of Karachi. For this purpose, T-Test statistic was used. T-test assesses whether the mean between the two groups, in this case, Gender and the specified category of the Global Products, is significant or not.
To further test the significance of the means of the two independent variables, we use the Levene's test for equality of variance. This test refer to the figures computed from the T-Test to ascertain whether the difference between attitudes of female towards Global entertainment, furnishings, food, clothing, lifestyle and brands is more significantly positive than that of the attitude of males.

Measurement:

A 'Structured and non-disguised' questionnaire was used for collecting the necessary information from the respondents. The information regarding the various categories of Global Products like Entertainment, Home Furnishing, Clothing, Food, Lifestyle and Brands was gathered through a multi-item scale employed in the past studies as well. A brief discussion on the scale used in this research is as follows:

A Likert scale is a psychometric scale which is commonly involved in researches that employ questionnaires and surveys. It is the most globally used approach for scaling the responses obtained from the survey research, such that the term is often used interchangeably with **rating scale**, or more accurately the **Likert-type scale**. When responding to a Likert questionnaire item, respondents specify their level of agreement or disagreement on a symmetric agree-disagree scale for a series of statements. Thus, the range captures the intensity of their feelings for a given item.
A total of four Socio-demographic antecedents like age, gender, education and the place of residence have been used in the study. Multiple choice questions were employed for soliciting the information from the respondents.

Draft questionnaire was pre-tested with selected respondents. Based on their comments and suggestions, the questionnaire was modified in terms of its language and context for the use in the research. Consumer Responses to all the multi-answer questions have been obtained on a 6-point Likert Scale ranging from "1=Always to 6= Never".

While surveying the respondents there were some who were not the targeted respondents. 1 person out of the 212 people surveyed had an education level below Intermediate/O-levels while 9 people were not living in Karachi. Responses of such individuals were eliminated during the analysis so as to keep the research onto the targeted audience only.

Residence of Respondents

- Karachi
- Other than Karachi
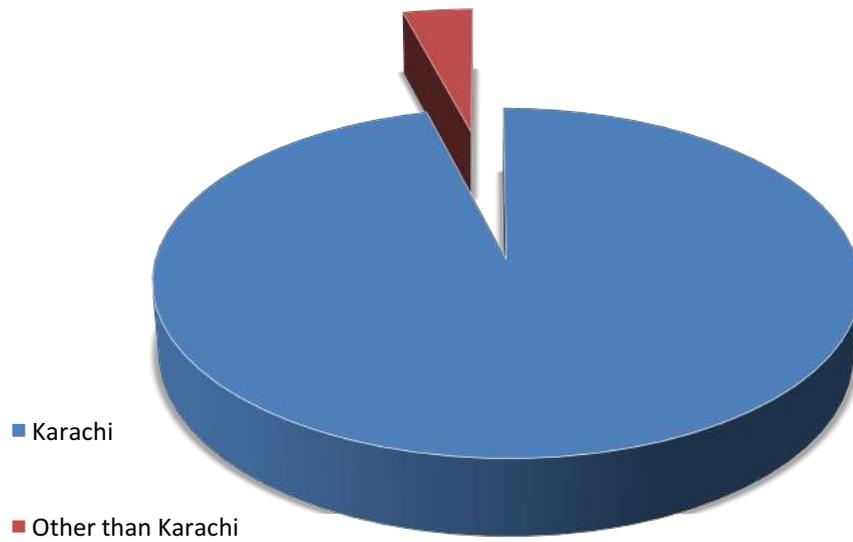
Eductaion of Respondents

- Above Intermediate/O-levels
- Intermediate/O-levels
- Below Intermediate/O-levels
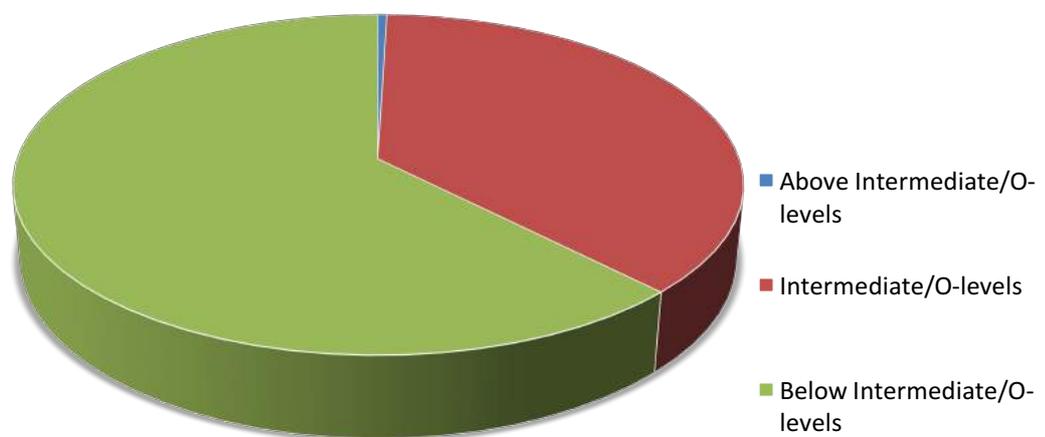
Graphic Profile of Control Variables

The graphs obtained from the responses to the online survey in relation to the different categories are as under:

ENTERTAINMENT
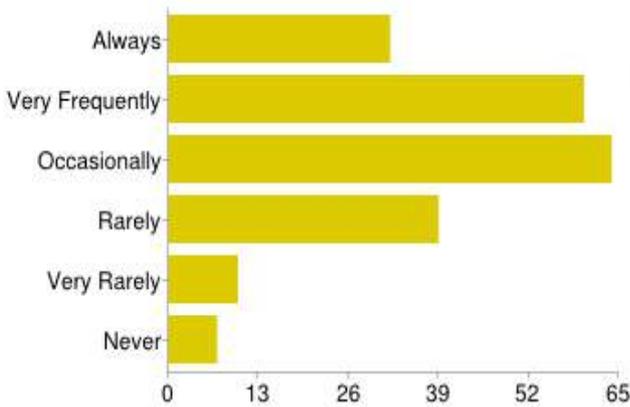
HOME FURNISHING
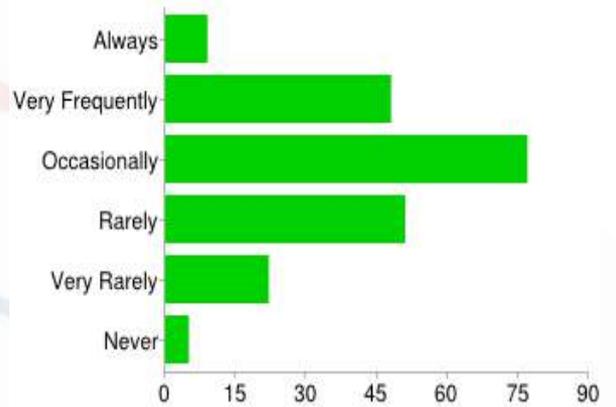
CLOTHING
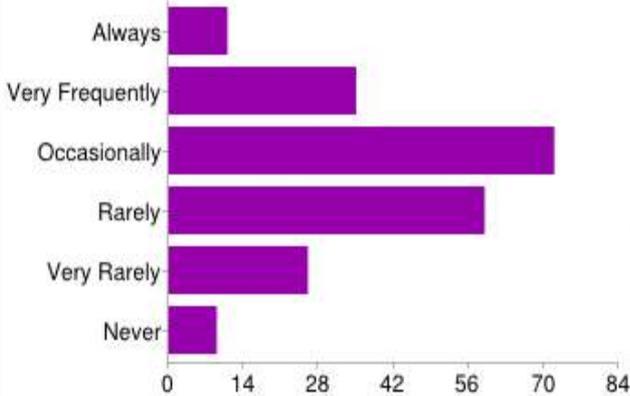
FOOD
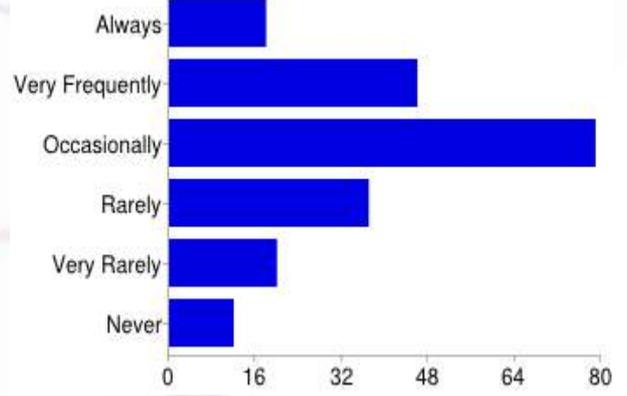
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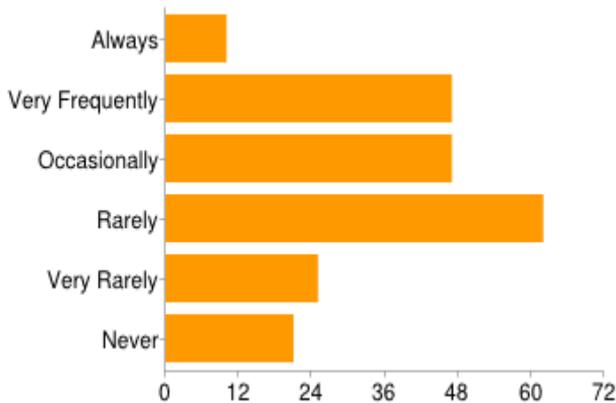
BRANDS
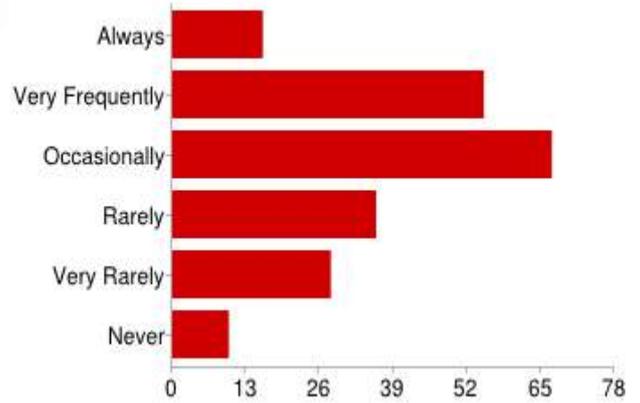
Findings

<u>Affect of Gender:</u>
Independent sample t-tests were performed for all 6 product categories to examine whether there is a significant difference between the attitude of male and female consumers towards global products. The test revealed statistically significant difference for three out of six product categories i.e. global entertainment ($t = 4.217$, $df = 193.8$, $p < 0.05$), lifestyle ($t = 2.412$, $df = 198.9$, $p < 0.05$) and brands ($t = 2.627$, $df = 195.2$, $p < 0.05$).

I.   Female consumers ($M = 4.52$, $S.D = 1.143$) reported significantly positive attitude towards global entertainment as compared to male consumers ($M = 3.82$, $S.D = 1.22$).

II.   Female consumers ($M = 3.66$, $S.D = 1.325$) reported significantly positive attitude towards global lifestyle as compared to male consumers ($M = 3.21$, $S.D = 1.328$).

III.   Female consumers ($M = 4.05$, $S.D = 1.231$) reported significantly positive attitude towards global brands as compared to male consumers ($M = 3.58$, $S.D = 1.301$).

IV.
However, for the remaining three product categories i.e. home furnishings ($t = 0.911$, $df = 195.5$, $p > 0.05$) clothing ($t = 0.674$, $df = 202.1$, $p > 0.05$) and foods ($t = 0.674$, $df = 181.4$, $p > 0.05$), the results found were not statistically significant.

V.   Female consumers ($M = 3.85$, $S.D = 1.08$) did not report significantly positive attitude towards global home furnishings as compared to male consumers ($M = 3.71$, $S.D = 1.13$).

VI.   Female consumers ($M = 3.66$, $S.D = 1.21$) did not report significantly positive attitude towards global clothing as compared to male consumers ($M = 3.55$, $S.D = 1.137$).

VII.   Female consumers ($M = 3.95$, $S.D = 1.31$) did not report significantly positive attitude towards global foods as compared to male consumers ($M = 3.74$, $S.D = 1.385$).

Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Preference for Global Entertainment	Female	111	4.52	1.143	.108
	Male	95	3.82	1.229	.126
Preference for Global H.Furnishings	Female	111	3.85	1.080	.103
	Male	95	3.71	1.138	.117
Preference for Global Clothing	Female	111	3.66	1.210	.115
	Male	95	3.55	1.137	.117
Preference for Global Foods	Female	111	3.95	1.131	.107
	Male	95	3.74	1.385	.142
Preference for Global lifestyle	Female	111	3.66	1.325	.126
	Male	95	3.21	1.328	.136
Preference for Global Brands	Female	111	4.05	1.231	.117
	Male	95	3.58	1.301	.134

On the basis of applied tests it can be concluded that local female consumers do not have a more positive attitude towards global products as compared to local male consumers. The results can be explained on the basis of consumer ethnocentrism. A very recent study indicates that Consumer ethnocentrism has no relationship with the gender of a consumer. **(Matic, M. 2013).**

This essentially means that gender of the consumer cannot be considered a predicting variable to analyze consumer attitude towards global products and hence the attitude towards global products is independent of gender.

		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	75% Confidence Interval of the Difference		
									Lower	Upper	
Preference for Global Entertainment	Equal variances not assumed	.221	.639	4.217	193.889	.000	.701	.166	.510	.893	
Preference for Global Home Furnishings	Equal variances not assumed	1.007	.317	.911	195.526	.363	.142	.155	-.038	.321	
Preference for Global Clothing	Equal variances not assumed	.326	.569	.674	202.191	.501	.110	.164	-.079	.299	
Preference for Global Foods	Equal variances not assumed	6.827	.010	1.224	181.411	.222	.218	.178	.013	.424	
Preference for Global Lifestyle	Equal variances not assumed	.366	.546	2.412	198.957	.017	.447	.185	.233	.661	
Preference for Global Brands	Equal variances not assumed	2.351	0.127	2.627	195.277	.009	.466	.177	.261	.671	

Affect of Age:

For all the 6 product categories used to study attitude towards global products, the survey findings indicate negative correlation values. The most negative correlation value -0.425 was calculated for the Global foods category. The least negative correlation value -0.425 was calculated for the Global entertainment category. Since all the correlation values are negative it can be concluded with certainty that a negative relationship exists between age of the local consumers and their attitude towards global products.

		Age in years
Preference for Global Entertainment	Pearson Correlation	-.265[**]
	Sig. (1-tailed)	.000
	N	206
Preference for Global Home Furnishings	Pearson Correlation	-.324[**]
	Sig. (1-tailed)	.000
	N	206
Preference for Global Clothing	Pearson Correlation	-.364[**]
	Sig. (1-tailed)	.000
	N	206
Preference for Global Foods	Pearson Correlation	-.425[**]
	Sig. (1-tailed)	.000
	N	206
Preference for Global lifestyle	Pearson Correlation	-.338[**]
	Sig. (1-tailed)	.000
	N	206
Preference for Global Brands	Pearson Correlation	-.399[**]
	Sig. (1-tailed)	.000
	N	206

The negative relationship between age and preferable attitude towards global products can be explained on the basis of consumer ethnocentrism. As the age of a person increases their ethnocentric tendencies also increase. **(Matic, M. 2013)** The rise in ethnocentrism causes these consumers to have a less favorable attitude towards global products as compared to local products. From the perspective of ethnocentric consumers, not buying 'local' brands, products and services is ethnically not right and unpatriotic because they believe this conduct could diminish domestic economy and result higher domestic unemployment rates **(Shimp, T. A. & Sharma, S. 1987).**
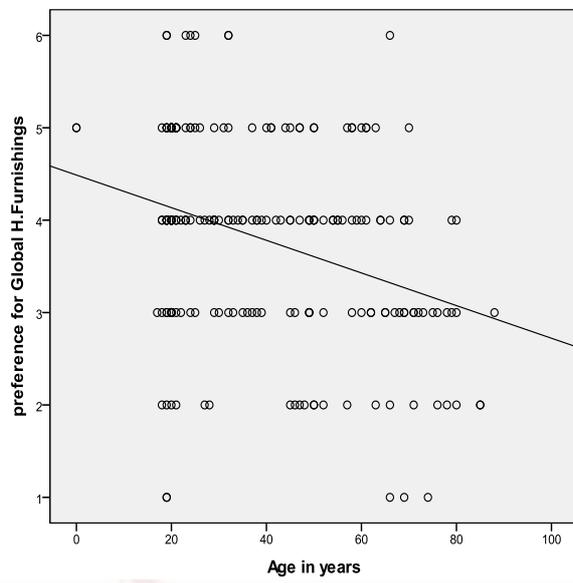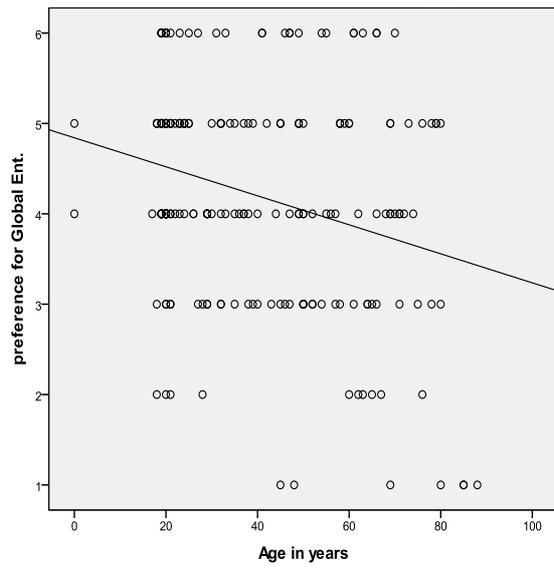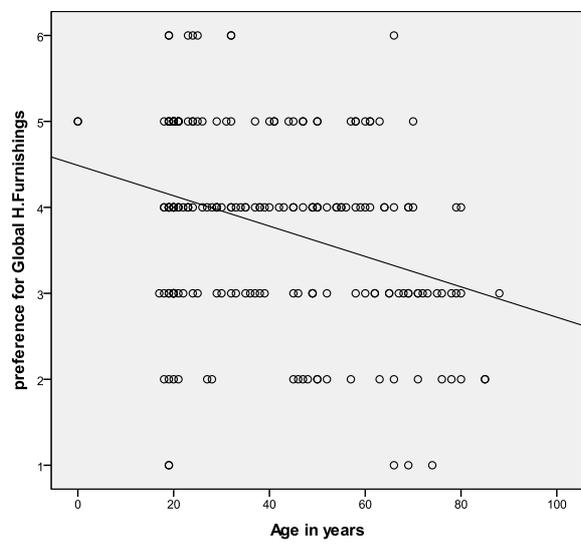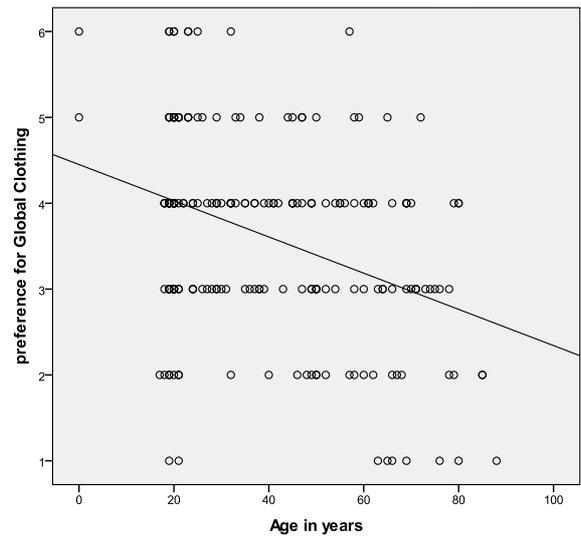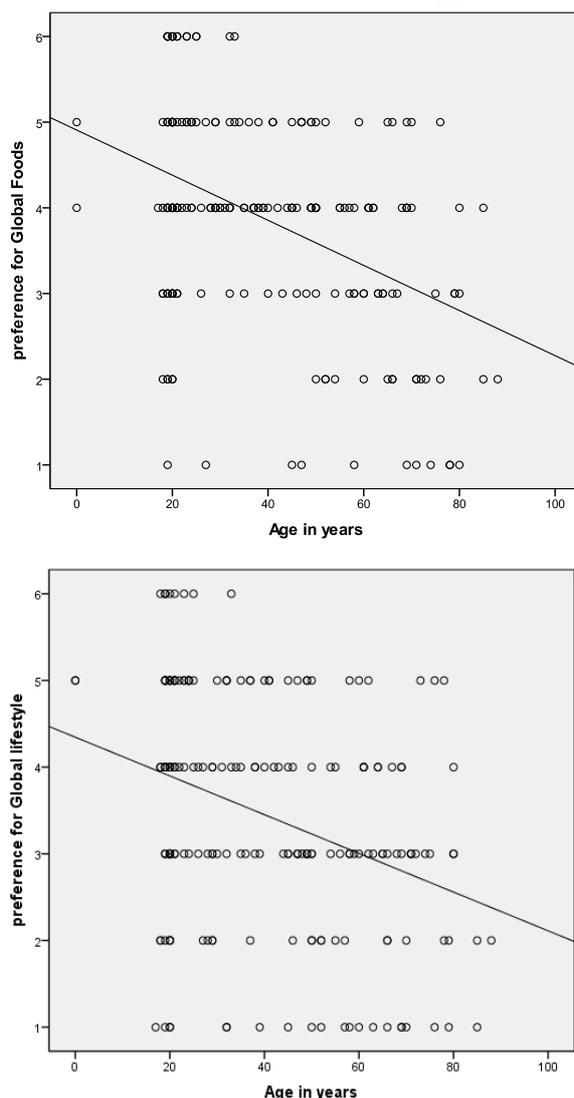
Managerial implications

The basic aim for writing these implications is to provide the management of both local and global corporations who want to tap in the local market with valuable insights about the attitude of local consumers towards global products. Some of the people who can benefit from this research are:

Brand Portfolios Developers:

Many international companies, in today's era, favor global brands and because of which they shed local brands out of their business portfolio. Our research provides an insight to all those companies operating in Pakistan about the possible consumer attitudes towards the global products. It also helps them in deciding their targeted audience for a certain product as our research focuses on the difference in the attitude towards Global Products in relation with the age and gender of the consumer.

Researchers:

Our research will also help the researchers in developing their researches on the local market further. It will give them a fair idea about the market and the variations in attitudes of the local consumers. They can conduct a more descriptive research through our research.

<u>Market Analyst:</u>
The findings from our research suggest that young consumers prefer Global products and this attitude decreases as they grow old. This will help the market analysts to categorize their market and to target the right market for their products.

Limitations
<u>Place constraints:</u>
Our research has been strictly confined to the consumers in Karachi; therefore, the results computed might change if we take on a greater sample size and conduct the research on a bigger level. Also, one of the key finding of the research shows an insignificant change between the attitudes towards global products of local males and females, however, we believe that a study on a more diverse sample can deviate the result.

<u>Age Constraints:</u>
 Also, the average age of the respondents who took this survey is 20 which mean that our research is more inclined towards the views of the younger generation because the most used mode to circulate the survey was through social media.

Moreover, people were also reluctant to fill the survey out which also proved to be a limitation in our research.

Recommendations for further research

Global researches can also compare the study of this research with the research done in their countries to analyze the deviations in the findings of the attitude towards global product in different countries.

Moreover, students can use the finding from this research to further develop their research on a local level.

Further researchers can include the value-based framework in the research. They can work on the values which affects the attitude towards Global Products. They can also introduce the concept of Attitude towards Local Products and compare it with the Attitude towards Global Products.

Also, we need to know how Consumer Culture affects the attitude towards Global and Local Products. Which consumer cultural rituals, practices, symbols, and artifacts are especially important in cementing the link between Global Consumer Culture/Local Consumer Culture and global/local products? How can marketers use this information to better position their brands on GCC, LCC, or possibly a combination of the two?

Appendix

Questionnaire Form
Global products are those products which are made with similar specifications and packaging for consumers from around the world. In this survey you will be asked to answer a few questions about your attitudes towards global products. Please answer clearly and honestly. Your participation will be greatly appreciated!

1.   **Your Name(optional)**
     First Name   **Last Name**

2.   **What is your age in years?**
     -- Please Select --

3.   **What is your gender?**
   ○   Male

   ○   Female

4.   **What is your education?**
   ○   Below Intermediate/O-levels

   ○   Intermediate/A-levels

   ○   Greater than Intermediate/ A-levels

5.   **What is your place of residence?**
   ○   Karachi

   ●   Other than Karachi

6.   **What sticks out to you the most about Global products? What do you like or dislike about them?**

7.　　　　For each of the following statements please indicate your level of preference/enjoyment:

	Always	Very frequently	Occasionally	Rarely	Very rarely	Never
I enjoy entertainment that I think is popular in many countries around the world	○	○	○	○	○	◉
I prefer to have home furnishings that I think are popular in many countries around the world	○	◉	○	○	○	○
I like to wear clothing that I think is popular in many countries around the world	◉	○	○	○	○	○
I enjoy foods that I think are popular in many countries around the world	○	○	○	○	○	◉
I prefer to have a lifestyle that I think is similar to the lifestyle of consumers in many countries around the world	◉	○	○	○	○	○
I prefer to buy brands that I think are bought by consumers in many countries around the world	◉	○	○	○	○	○

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Image of "Justice" in Dostoevsky's Crime and Punishment

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Abstract

Dostoevsky's *Crime and Punishment* is a psychological novel, which has been subjected to various interpretations by the scholars worldwide. Dostoevsky has aptly dealt with the problems of the concept of justice and human existence. The protagonist is suffering from an acute psychological crisis after committing the dual murders. He has his own vision of justice inspired by the Hegelian concept of Superman to substantiate his act of murder of the pawnbroker. *Crime and Punishment* primarily analyses the concepts of utilitarianism and nihilism, which ultimately culminate into Kierkegaardian existentialism.

It is a gripping novel showing how the image of justice varies from person to person. The connotation of justice depends on the perspectives of different individuals. The novel makes us think again and again about the issues relating to justice. Does system really follow justice? If so, then why is there so much of social inequality?

In the present paper, I would like to analyse the image of justice in the context of the novel and in wider perspectives as well. Justice is basically a fluid concept. We cannot limit the meaning of the word in a definition.

Keywords: Hegelian & Nietzschean Concepts of Supermen, Existentialism, Nihilism and Utilitarianism

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Dostoevsky's *Crime and Punishment* was written against the backdrop of socio-political reforms in Russia, when Tsar Alexander II had initiated substantial reforms in education and government policies. Overall, it was an era of emancipation and Russia was trying to be at par with European culture. The ideologies of German philosophers like Kant, Hegel and Nietzche had been in the air along with the doctrines of Godwin as propagated in his book entitled *Political Justice*. According to Joseph Frank, this was the era, when the ideals of Utopian Socialism was replaced by "embittered elitism, which stressed the right of a superior of individual to act independently for the welfare of humanity" (Frank 567). Joseph Frank's statement as made in the easy entitled "The World of Raskolnikov", is quite apt in the context as the protagonist believes in the concept of Hero as doctrinated by Hegel in his book entitled, *Introduction to the Philosophy of History*. Ian L.O' Kidhain explains this Hegelian concept of hero in an article entitled, "Dostoevsky's Hegelian Parody in *Crime and Punishment*", where he explains that the hero is meant to contribute his original idea to the society for its progress. Hegel's heroes are "world historical individuals" like Julius Caesar, Napoleon Bonaparte and Alexander the Great. Kidhain also says that Hegel believes that mundane people live in a group and their primary concern is to focus on their own comfort.

Furthermore, these mundane people uphold the rules given to them by their predecessors. What we understand is the heroes can only bring in a change in the society by their unconventional thinking and ideologies. They never associate themselves with the mass. They are passionate enough to shape the world in the image of their own interests (Ian L.O' Kidhain 5). In part five of the novel, Raskiolnikov tries to justify his stance to Sonya for his act, which is an act of crime before the society. The society never accepts the murder of a human being by a fellow human being to prove a theory. The author once wrote in a letter, "to kill one worthless, harmful, and rich being, in order to use the money to make many beautiful but poor people happy…" (Sergei V. Belov 489). This was the original concept of the novel, which he had initially expressed to his publisher friend Katkov in 1865. It was the time, when the author himself was in debt as he had lost a huge sum of money in gambling. At the same time, he wanted to help his brother's family as his brother had passed away in 1864. This biographical information makes us understand that the author stands behind the psyche of the protagonist. The author portrays his own trauma through Raskolnikov. In part V, chapter IV, Raskolnikov tries to substantiate his act to Sonya. The murder of the pawnbroker for him is an act of proving a theory, which is otherwise a heinous crime. Let us listen to him: "I wanted to make myself a Napoleon, and that is why I killed her… it was only to test myself…I killed myself, not that an old creature!... that I committed a murder and dared not take the money, but hid it under a stone…you know they would laugh at me and say, "he was a fool not to take it" (350-355).

Here we clearly see that this is not an act of ordinary crime as he does not touch the money of the old pawnbroker. He slips away from the place of crime unnoticed. He wishes to be Napolean. Napoleonic idea of power has been explained by Sergei Belov very precisely in his essay entitled *The History of the Writing of the Novel*.

"…Napoleonic Idea," the idea of power for the sake of power, the idea dividing mankind into two unequal parts: the majority—the trembling creatures---and the minority---the masters, called from birth to the mission of ruling over the majority, standing outside the law and having the right, like Napoleon, to transgress against the law and to break the divine order of the world, for the sake of the ends which they require (Sergei V. Belov 490). Our protagonist is greatly influenced by this idea. But he fails to realize that he is not potent enough to rule over the mass. He believes that only the murder of the old pawnbroker will save this earth from misery and he goes against the natural order of the universe. His personal ideology is to some extent contradictory. On the one hand, he has love for fellow human beings. On the other hand, he possesses a sense of contempt for them. We can say that he is a confused individual. Leo Tolstoy says that Raskolnikov did not live his life before the act of murder. He was just following a theory mechanically. He lacked in the foresight to realise the practical implication of a theory. Theory cannot always be proven in our life. A scientific theory can be proven as it is empirical. But a philosophical or sociological theory may not always offer a desirable outcome after implementation. We have seen that in the history of our society. When our protagonist refers to Napoleon, we have to remember that he is alluding the patriotic war of 1812 with France, when the grand troupe of Napoleon had suffered extensively due to the bad weather and Napoleon was defeated. This battle incurred a huge loss for French army. But Raskolnikov did not learn the lesson of a great sense of waste, which is quite inevitable after a war. We can say that he is in a state of utter confusion. His idea of justice is somewhat vague and that leads him towards the verge of existential crisis.

Some critics call him a nihilist as he is extremely dissatisfied with the socio-political scenario of contemporary Russia. A nihilist, as we know, suffers from an extreme sense of negativity. Raskolnikov is no exceptional. His nihilistic approach to life may be the result of the failure of all the ideologies. Dostoevsky was basically a socialist and a fourierist as well. Both socialism and fourierism advocate the doctrine of common welfare. Individual will have no control over property. Along with that fourierism also upholds the concept of divine order in the universe, which can be equated with John Locke's natural law theory. Naturally, Raskolnikov is also influenced by these theories as the author himself stands behind his creation. In reality, we see that socialism failed as the individual interest was thwarted in the interest of the collective. Raskolnikov however adheres to theories like utilitarianism, socialism and Hegelian concept of superman to protect his mother and sister. This caters to his personal interest. Protecting one's own mother and sister will never bring in a change in the society. This is a duty for all of us. But Raskolnikov's sense of justice is motivated by a theory. He tries to substantiate that by murdering the old pawnbroker and her sister. Theories may help us to form opinions but we have to remember that the theories are not always enough to rule the ways of this universe. The universe has its own law. Raskolnikov fails to understand that. Plato in Book IV of *The Republic* says that Justice is harmony. "Justice is, for Plato, at once a part of human virtue and the bond, which joins man together in society. It is the identical quality that makes good and social. Justice is an order and duty of the parts of the

soul…it is a harmonious strength. Justice is not the right of the stronger but the effective harmony of the whole" (Web).

Godwin also promotes the concept in the same line in his book entitled, *Political Justice*. The chapter IV of Book II is entitled, "Of Personal Virtue and Duty", where Godwin says, "Justice requires that I should put myself in the place of an impartial spectator of human concerns…Justice is a rule of the utmost universality, and prescribes a specific mode of proceeding, in all affairs by which the happiness of a human being may be affected" (Web).

Both of them believe that justice promotes collective happiness and it follows the rules of the universe or the natural law. Therefore, Godwinian and Platonic concepts of justice have nothing to do with utilitarianism and superman theory. Raskolnikov's sense of justice is just the opposite of this traditional concept. He hardly bothers about the collective welfare. His definition of justice is too selfish in the wider perspective.

Apart from Raskolnikov, Svidrigaylov is another strong male character in the novel. According to Georgy Chulkov, Svidrigaylov is needed in the composition of the novel as the crooked mirror to Raskolnikov himself (Georgy Chulkov 496). Critics like James L. Roberts say that Svidrigaylov represents the Nietzschean Superman or übermensch, who is an overman, overhuman or above-human (Web). This term had been used by Hitler and the Nazis to depict the idea of biologically superior race, the Aryan. Nietzsche's superman follows the Diyonisian principle of existence. He explains the characteristics of a Diyonisian man in his book entitled *The Birth of Tragedy*. A Diyonisian man is passionate, creative, dynamic and to some extent irrational. Indeed, Svidrigaylov embodies all these characteristics but his dark irrationality crosses the limit. He does not use his energy for any creative work. K. Mochulsky calls him a "voluptuary" (Mochulsky 507). We can say that Raskolnikov and Svidrigaylov combine both the Apolonian and the Diyonisian principles respectively. Raskolnikov wishes to bring in order, harmony and peace in the society whereas Svidrigaylov does not know how to use his excessive energy. Both of them fail as one is not realistic enough to judge the practical aspect of a theory and the other one overstretches himself to satisfy his dark desire. He tests his freedom that how far he can go. His notion of justice is purely subjective. He does not bother about the society at all. K. Mochulsky says, "The superman can find nothing to do in the midst of people. His strength finds no outlet for itself, and so it becomes self-destructive" (506-7). Here, I would rather say that Svidrigaylov could have used his energy for a creative pursuit. He lacked in the vision to lead a better life. His perception of life is pessimistic and he acts accordingly. Both Raskolnikov and Svidrigaylov suffer from a strong sense of existential crisis. They do not find any meaning of their existence. This crisis blinds their ability to see things in a proper light. They become too individualistic and egoistic to satisfy their own needs. Their sense of justice is dominated by their personal ideologies. They are not even in a position to think of collective benefits. Whereas the character of Sonya is just the opposite of the duo. Her sense of justice follows the divine order or the natural law, which had been spoken by the classical philosopher, Plato in *The Republic* and then it was again taken up by Godwin in *Political Justice*. Sonya embodies the image of our

conscience, which protests against the bloodshed and the reason justifying the bloodshed (Sergei V. Belov 491). Sonya too is also a victim of poverty like the protagonist and it pushes her to take the extreme step of prostitution for survival. She does not complaint against her fate or the system. She appears to be extremely passive or submissive throughout the novel. But we should not neglect her gesture of passivity. Her apparent passivity is an attempt to put a strong face before all the odds. She knows very well how to survive in an adverse socio-political condition. Her language of protest is silence. When critics like George Gibian makes a statement that it is significant that Sonya, the wisest person in the book, is the most inarticulate of the major characters of the novel (George Gibian 527). I would like to differ with Gibian as Sonya is aware of the fact that she cannot win over the situation. She has control only over her fiancé and she tries to impart her message of justice through Raskolnikov. In fact, Dostoevsky is criticizing the attitude of contemporary intellectuals who are prone to ratiocination. Their sense of reasoning goes beyond the inner sense of right and wrong or individual sense of justice. We can say that Sonya is the spokesperson of the novelist. Her message to the protagonist ultimately explains the core ideals of the novel. She speaks out the doctrines of Christianity as well as the universal spirituality that we should not go against the moral law. We can relate her with the image of Cosmic Feminine or Dynamic Feminine, who restores harmony and balance in Raskolnikov and in the society at large. "No matter what the origin of this law may be, it exists in the soul of man, as a reality, and it does not allow itself to be broken. Raskolnikov tried to breach it, and he was defeated. Everyone is bound to be defeated in this way if he possesses the moral sense, and breaches the moral law "(Sergei V. Belov 492)

The inner law wins over the theories. The final message of the novel can be equated with the Kierkegaardian principle of existentialism that human beings must live sincerely and passionately. The world does not seem to be absurd and meaningless, if we are optimistic. The human beings create their world with their own consciousness. Our consciousness forms our values and that offers us a meaningful existence. In the present context, we see that the notion of justice varies from individual to individual because of our differing consciousness. Therefore, it is difficult to define justice literally. The very concept is fluid. Our sense of justice lies in our consciousness and in our perception of the world. Raskolnikov, Svidrigaylov and Sonya have different notions of justice, which appear to be contradictory in the given context. Over all, in reality, it is the individual sense of justice, which dominates one's action. Therefore, we cannot really limit the meaning of the word in a definition.

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Justice in Measure for Measure: An Approach through Sri Aurobindo's Yoga Psychology

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Abstract

The theoretical approach applied in my paper is based on the 'consciousness investigation' of Sri Aurobindo(1872-1950), who gives us a detailed map of the human consciousness using his own terms for the different areas of our being, like the Physical, Vital, Mental, Psychic(in the *Upanishadic* sense), their various sub-divisions and the blend of those planes operating in us. Like Jung, (*Transformation and Symbolism of the Libido*, 1913), Sri Aurobindo goes against Freud's idea of *Libido* (the Indian uses the words 'Vital' or 'Physical-Vital' for *Libido*) as a mere sexual impulse and believes in its capacity for creativity and inspiration, especially if it is influenced by the *Psychic*, our inmost being, hidden behind the physical, the vital and the mind. For Sri Aurobindo, 'the *Psychic* is our soul in evolution from birth to birth'. I agree to the Christian interpretation of *Justice* in *Measure for Measure*. But then, can Justice be perfect without a change of consciousness in the judges? What does Shakespeare mean by the *Justice* of the Duke? The present paper wishes to examine the consciousness of the characters in *Measure for Measure*(1604), especially that of the Duke, and find out the real nature of *Justice* offered in the court and prison of Vienna, where we find the important locations of action in the play.

Keywords: Justice, Mercy, Corruption, Vital, Psychic (the Indian definition of the word).

Measure for Measure is placed among the dark comedies of Shakespeare, where a tragic situation is awkwardly converted into happiness by a Christ like character in the form of a Duke. But then, the happy ending fails to erase from our minds what has passed throughout in the play. It is commonly guessed that Shakespeare himself must have been passing through an uncertain period in his life while writing these dark comedies. However, going by Sri Aurobindo's lens, through his yoga-psychological approach, one can penetrate into the inner aspects of human crisis, as we see in *Measure for Measure*, a crisis which Shakespeare wished to present deliberately for his audience. A brief image of Sri Aurobindo's map of the human consciousness will help us move comfortably into the inner mechanisms of the characters like Angelo, Isabella and the Duke.

Sri Aurobindo's concept of the outer consciousness is formed by the physical, the vital and the mental (mind). Behind these outer layers lies a vast subliminal self consisting of the inner being, the inner physical, the inner vital and the inner mental supported by the inmost being, which Sri Aurobindo calls the psychic being. He calls Shakespeare "a great vital creator" in the *Future Poetry* , (Complete Works Vol : 26: 79) meaning his observation that all Shakespeare's characters are vital creatures. The vital is a plane located between the heart and the sex-centre(Satprem 68). There is a higher vital and there is a lower vital. The higher vital is not all sex; it has a great drive for creativity, generosity and many refined aspirations. But, the higher quite often sinks into the lower vital, projecting our hidden desires, as it happens with Angelo, the man in power. Power, money and ego smoothly work in combination to drag the lower vital down to a crude bargaining for sex. All the good wishes for true justice are being swept away by this irresistible call of the lower nature in Angelo, as Isabella comes to beg for her brother's life. While Angelo is gripped by his lower vital, his consciousness begins to interpret Isabella in terms of his own consciousness, which is above his consciousness. At least, Isabella is residing on a finer vital plane. She does not always have that mellow speech style of a Rosalind or a Miranda. That does not mean she will sink down to the lower vital by a putrid "justice" from a man of power. If she is at a loss on some moments, it is because of the imminent death of Claudio, her own brother. In his soliloquy in Act ii, scene ii, Angelo realizes his desire, and for a moment at least thinks Isabella to be virtuous. But Power corrupts and drags people down to the lower vital and the crude physical. The seed of unlawful sex is planted in the ruler's consciousness and it comes out on the surface in Act II, scene iv. This consciousness in a person in Power cannot bring justice to humanity. Redeem thy brother

By yielding up the body to my will;
Or he must not only die the death,
But thy unkindness shall his death draw out
To ling'ring sufferance. (Das Gupta 49)

The action taken by the disguised Duke is also intriguing. He is creating a circular plot instead of taking action against Angelo instantly. Since his is the last word in Vienna's court and since he knows a lot about Angelo's past guilt, it looks awkward for a Christ-like Duke to act in the most un-Christly manner. P.C. Ghose quotes from *The Wheel of Fire* by G. Wilson Knight:

the plot is so arranged that each person receives his deserts in the light of the Duke's--- which is really the Gospel-ethic… The Duke, like Jesus, is the prophet of a new order of ethics… The Duke's ethical attitude is exactly correspondent with Jesus': the play must be read in the light of the Gospel teaching, if its full significance is to be apparent. (Ghose 66)

But then, it is difficult to accept wholly this generalized remark by Knight in view of the multiple attitudes of a human being. The Duke is after all an imperfect human being with an imperfect consciousness. Man is, according to Sri Aurobindo, a transitional creature. He is not final. Nature cannot be satisfied by an imperfect creation. A super race is in the making, who will go beyond man in consciousness. Until that new species arrives, no justice can be perfect, as the human consciousness cannot be perfect. Yet, the Duke does what he can, keeping his mind on Christ as he judges in the final moments of the play.

Shakespeare's mingled vision of life is well known since the time of Dr. Johnson. And this mingled vision has a close relation with the Aurobindonian psychology, which claims man as a multiple personality. And the consciousness-tiers presented by Sri Aurobindo are far more detailed than Freud's, like the gross physical, the vital proper, the lower and the higher vital, the mind with its four subdivisions, the physical mind, the vital mind, the mechanical mind and the reasoning mind. Then there is the subliminal, which contains the inner mental, the inner vital and subtle physical bodies and the inmost or the psychic being. The Duke operates his sense of justice from the higher vital, which is influenced by the psychic from behind. His decision to marry Isabella is a mental choice influenced by the psychic. It grows out of a kindness, which has a distinct influence of the psychic from its hidden centre in his subliminal being. This kindness is central to the character of the Duke, which helps him do justice in a better way than the average kings and rulers. He is a human being after the ideals of Christ. Naturally, one cannot expect a perfect perfection in his justice.

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Gender Equality and the Empowerment of Women and Girls in Nigeria: The way forward to National Security

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Abstract

More essentially, women have been subjected to social control been dominated by men. This is as a result of persisting cultural stereotype, misuse of religious and traditional practises in which educational, political and social power are dominated by men, and women have always been followers of men in the society and the men predominantly see themselves as leaders of women. Gender Equality has been a great issue of concern in Nigeria most especially among the women, equality between men and women is just fair and right. The attainment of gender equality is not only seen as an end itself and human right issues, but as a prerequisite for the achievement of sustainable development and national security in Nigeria. To respond to the challenges of gender inequalities there is need to recognise the main issues leading to inequality among gender. The research methodology is termed qualitative research and with the use of primary data gotten through administered questionnaire and secondary data gathered from the news print and journals.. The aim of the study was to basically know the major causes of gender inequality in Nigeria. We also suggested strategies to ensure gender equality in all sectors in Nigeria.

Keyword: Gender equality, Women and girls, National Security

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Background of the Study

A nation that is not engendered is endangered. Engendering a country through gender equality implies the effectiveness of National Security that promotes greater equality between women and men. Gender is a central organising principle of societies and often governs the processes of security. Women represent over 70% of the World's poor due to unequal access to economic opportunities. Increasing female participation in the workforce and the development of the female human capital will not only help to reduce poverty at the household level, it will also radically enhance national security (AFDB, 2012).

The global economic recession and the gulf between job creation and the growth in the numbers of job seekers have worsened the employment situation for women and men alike. But women face greater vulnerabilities in the labour market because of their relative lack of education and training, the tendency to channel women into certain occupations, and the continuous heavy burdens of unpaid domestic work, child bearing and childcare, which restrict the time and energy available for income-earning activities.

Nigeria like other countries in the world is responding to the clear request calls made variously by the United Nations to rid societies of all forms of discriminations especially gender based discriminations. Nigeria indeed has tried to respond to this development from the international arena by articulating policies and programmes that seek to reduce gender inequalities in socio economic and political spheres, however, the success of bridging the gap between men and women is farfetched.

Omonubi-Mc Donnel (2003:2) Opines: Politically, Nigeria women are negligible and undermined force. Economically, they constitute the majority of the peasant labour force in the agricultural sector, while most of the others occupy bottom of Occupational ladder and continue to be channelled into service and domestic occupations. The consequence of the unequal status between men and women is high level of economics and political powerlessness among women, powerlessness in turn retard development of any level, politically, economically and socially. Gender based discrimination is an all pervasive global problem which has occasioned intense gender inequality in many countries of the world. It existed from the dawn of civilization and has continued over centuries. Gender discrimination, has created wide gender gaps in many countries of the world, with very devastating social, economic and, health consequences on the members of the female gender, who have been intensely marginalized, and subjugated to the background. The world, for the past few decades has witnessed a resurgent interest in feminist jurisprudence. This interest has culminated in the emergence of numerous global strategies geared towards women empowerment and emancipation.

The Nigerian culture perceives and treats men as superior to women, this is well manifested in the "son preference syndrome" that is prevalent in Nigeria. Male Children in Nigeria often enjoy preferential treatment, like exemption from house chores; they enjoy unlimited right to education, while the girls are trafficked by some greedy parents for economic gains in the home. The culture equally disinherits wives and daughters. In the home front, women are subjected to all sorts of inhuman and degrading treatment. Our culture strictly restricts women to the stereotyped role of home keeping, child bearing and childrearing. She is to be seen and not heard.

(Olagbegi and Afolabi, 1999), have rightly observed, that this subordination of women by our culture knows no boundaries or barriers, and is not dependent on the "social, educational or economic status of the Nigerian women. Consequently, one finds that uneducated and poor women in the rural community suffer as much subordination as educated and rich women in the urban centre". Another worrisome aspect of this cultural marginalization of women in Nigeria as observed earlier is its deep rooted nature in the Nigerian system.

Statement of the Problem
An emerging contemporary security challenges been faced by Nigerians today is the use of females as suicide bombers and kidnappers in public places such as markets and places of worship (Mosque and Churches) by the terrorist group (Boko haram) in the Northern part of Nigeria as well as the Niger Delta Militant in the South South part of Nigeria, Armed robbery and political violence and instability as it is presently all over the country now.
Several reasons have been the cause of these challenges. These include gender inequality, high rate of poverty and illiteracy among Nigerian women due to some religious and cultural beliefs.
In an interview, Tinubu also observed that Men have always been a very dominant character, the women find it difficult to know where they are placed, men expect women to even beg for their own right, gender equality can be achieved in Nigeria but the country has a very long way to go.
At the heat of the problem is the Absence of a Comprehensive strategy for promoting gender equality and empowering girls as an approach to addressing national security issues.
It is against this background that this study seeks to find answer to the following research questions:

Research Questions
1. What is the relationship between Gender Equality and National Security?
2. What are the factors responsible for gender inequality in Nigeria?
3. What are the prospects for achieving National security through Gender Equality and the Empowerment of Women and Girls in Nigeria?
4. What are the strategies for promoting gender equality in Nigeria as means of enhancing national security?

Objectives and the Study
The main objective of this study is to examine how gender equality and women empowerment can impact on Nigeria's national security and the specific objectives are:
I. To determine the relationship between gender equality and national security;
II. To determine the factors responsible for gender inequality in Nigeria;
III. To assess the ways in which national security can be achieved through gender equality and the empowerment of women and girls in Nigeria and
IV. To proffer comprehensive strategies that can be used to promote gender equality in Nigeria as a way forward towards enhanced National Security.

Scope of the Study
The essence of this research work is to primarily study Gender equality in Nigeria and how it can impact on National security of Nigeria. The research intends to focus on 12 states representing the 6 geopolitical zones of Nigeria for easy analysis of data. This will reduce cost and avoid complexity that may arise as a result of having a very large population.

Conceptual Clarifications and Literature
We shall clarify some concepts and review some literature with regards to developing the subject in Nigeria:

Gender: This refers to social roles allocated respectively to men and women in particular societies and at particular times. Such roles and the differences between them are conditioned by a variety of political, economic, ideological and cultural factors, and are characterized in most societies by unequal power relations. Bridge (1998) opines that gender constitutes one of the determinants of how poverty is experienced and of wealth creation. Rights and entitlements of men and women to opportunities, resources and decision making are based on socio-cultural norms rather than on human rights or the respective development capability of men and women.

CIRDDOC (2001) defines gender as a system of roles relationship between women and men that are determine not biologically but by the social, political and economic context. Scott (1988:2) captures the nature of gender, thus: Gender is the social organization of sexual differences but, this does not means that gender reflects or implements fixed and natural physical differences between women and men, rather gender is the knowledge that establishes meaning for bodily differences. These meaning vary across cultures, social groups and time since nothing about the body including women's reproductive organs, determines univocally how social division will be shaped.

 Women: Refers to the female gender, the opposite of male gender. There is the dependency syndrome that women are known to have being dependent on men. In order words, their roles are that of helpers to men.

Gender equality: This refers to a situation where women and men have equal conditions for realising their full human rights and potentials; are able to contribute equally to national, political, economic, social and cultural development and benefit equally from the results. Furthermore, it entails that the underlying causes of discrimination are systematically identified and removed in order to give men and women equal opportunities. Equality is therefore understood to include both formal equality and substantive equality, and not merely simple equality to men.

National Security: National security is a concept that a government, along with its parliaments, should protect the state and its citizens against all kind of "**national**" crisis through a variety of power projections, such as political power, diplomacy, economic power, military might, and so on.

Research Methodology
Method of Data Collection
The study adopted both primary and secondary sources of data, this involve wide consultation of books, journals, magazines, internet, published and unpublished books. Unstructured interview with some legislators and security personnel's was conducted. Data was also collected using the questionnaire which the researcher administered face to face to the respondents. Out of 300 copies of questionnaire distributed to the respondents, 280 copies were retrieved. This represented a response rate of 93.3%.

Sample Technique

Using the simple random sampling technique, five different states were visited which include Kwara, Kaduna, Ondo, Nassarawa, Rivers and the FCT. Using the purposive sampling technique, the researcher purposively selected a sample size of 300 respondents from the five states and the FCT. Each state contributed different indigene from the 36 states and the FCT. 2 states each were selected from the 6 Geopolitical zones of Nigeria sample sizes, thereby selecting 10 males and 10 females from each of the 12 states selected Therefore, the sample size for the study were 240 respondents.

Analytical Techniques

- Correlation analysis
- Descriptive statistics

Data Presentation and Analysis
Analysis of Demographic survey
50% of the respondents are women while 50% were men, 45% of the respondents were civil servant, 20% were military officers, 20% were private business owners and 15% were student and corpers, 50% of the respondent are from North and another 50% from the south, 51% were Muslims and 49% Christians.

Analysis of data survey
Nigerian peoples perspectives about gender equality.

STATES	Ondo	Ekiti	Rivers	Edo	Enugu	Imo
MALE	4	8	5	8	5	5
FEMALE	9	5	9	5	10	9

Average Total for SW   M = 45%   S.S M = 50%   S.E M = 50%
F = 85%   F = 85%   F = 95%

Average total for south male = 48% female = 88.3%
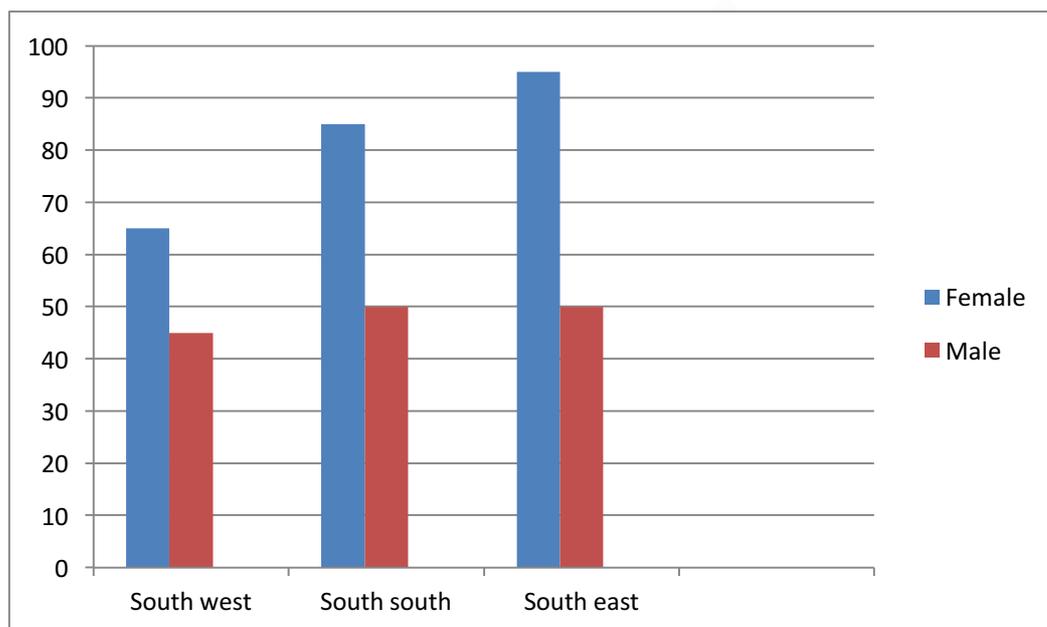
STATES	Kaduna	Kano	FCT	KWARA	ADAMAWA	BORNO
MALE	2	2	3	1	1	0
FEMALE	5	4	6	5	4	2

Average total for NW Male = 20%   NS Male = 20%   NE Male = 5%
                  Female = 45%   female = 55%   female = 30%
Average total for North Male   = 15%
                    Female = 43.3 %
Average total for Nigeria (North and South) Male   = 32%
                                          Female = 66%
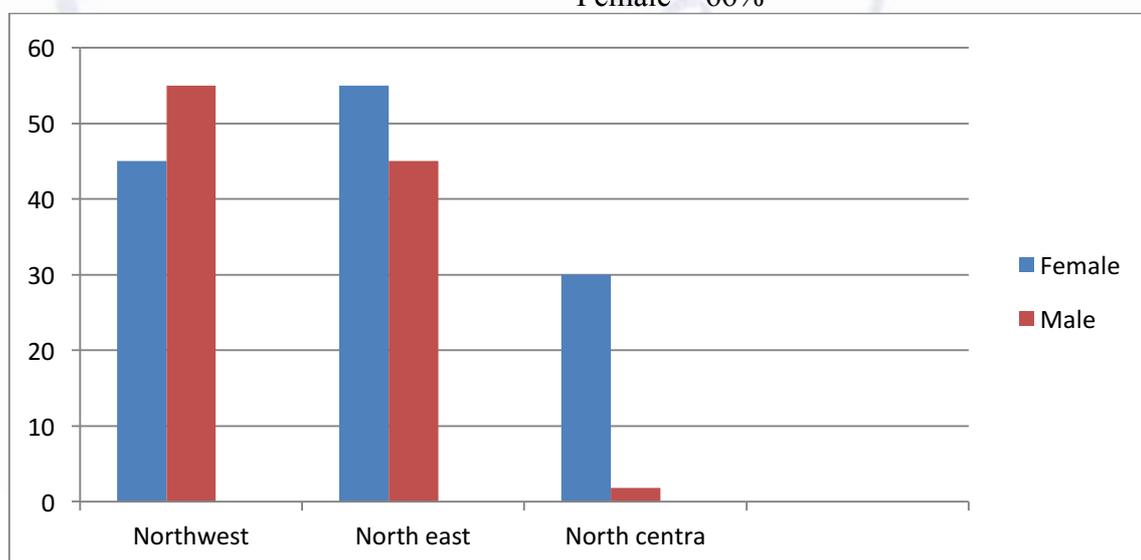
Nigerian women in various sectors
Civil Servants 45%
Business Sector 40%
Political sectors 25%
Military 30%
Full house wives 10%

Nigerian Women in various Sector

- Civil servants
- Business Sector
- Political sector
- Millateary and Defence Sector
- Full housewives
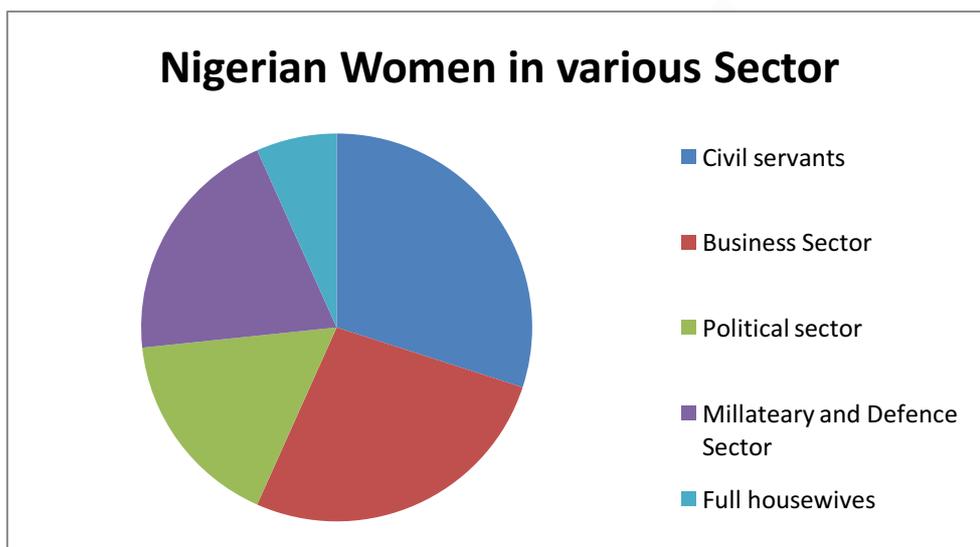
Reasons why women should not be equal with men

Cultural belief 60%

Religious belief 50%

Law and custom 15%

Pride and neglect of duty and responsibility 55%

Reasons why women should not be equal with men

- Cultural belief
- Religous belief
- Law and Custom
- Pride and neglect of duty and responsibility
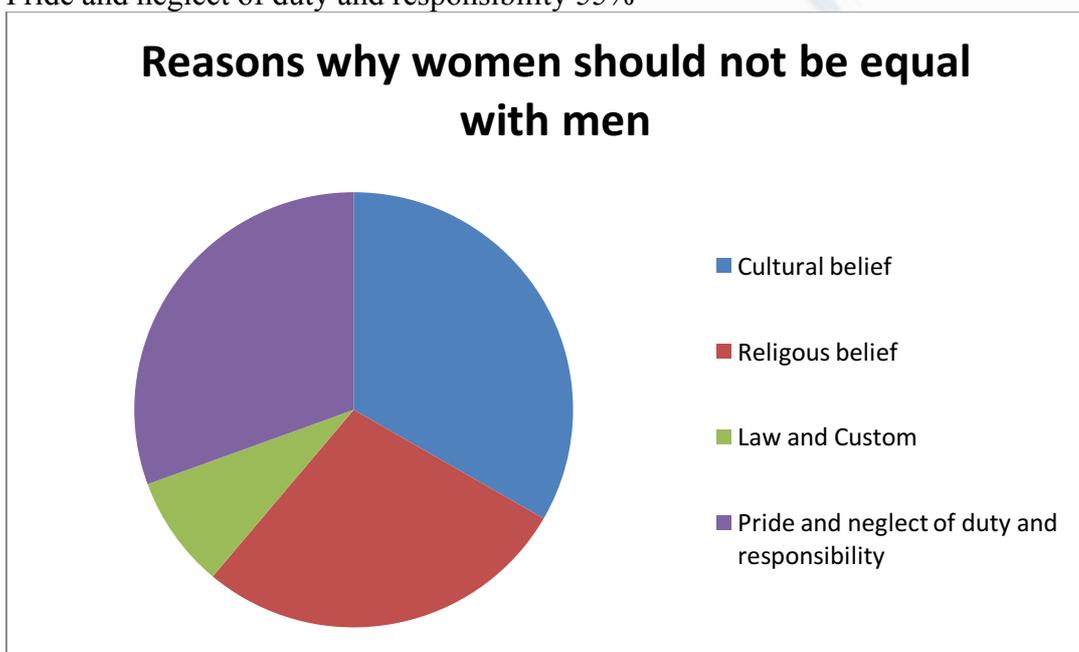
Religious belief why there can't be gender equality

Christian Male 60%

Christian Female 40%

Muslim male 95%

Muslim female 5%
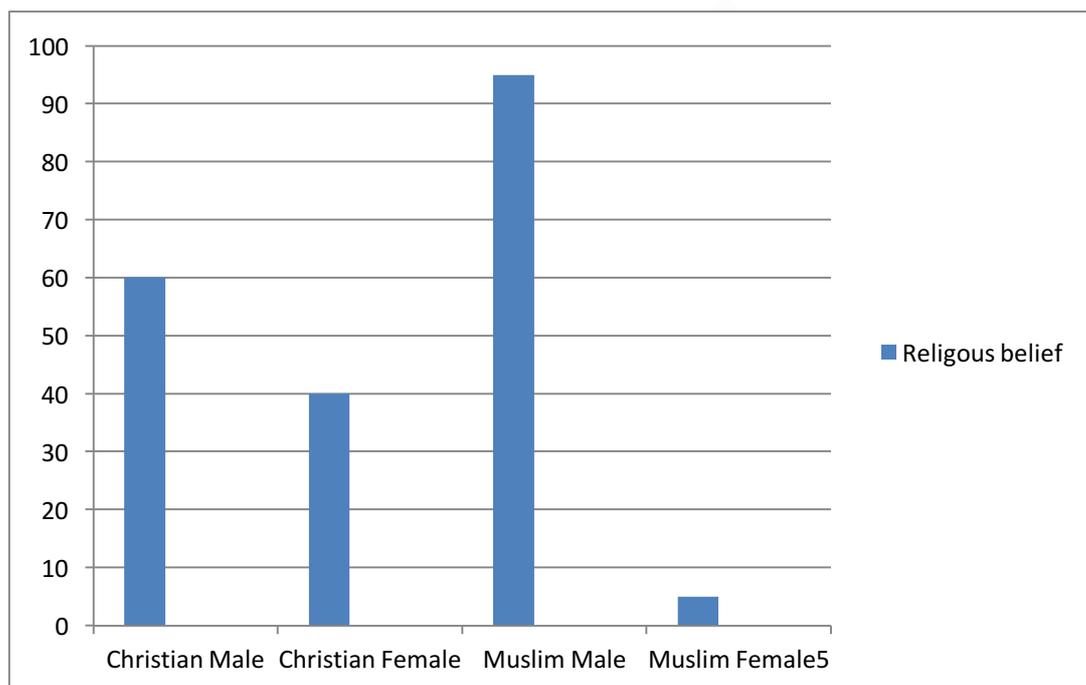
Ways in which Women Causes Insecurity In Nigeria

- Boko Haram suicide bombing in the North   26%
- Oil bunkering in the Niger Delta region   17%
- Kidnapping in the South South   12%
- Armed robbery in the South   38%
- Political violence and instability all over Nigeria   43%
- Corruption.   41%
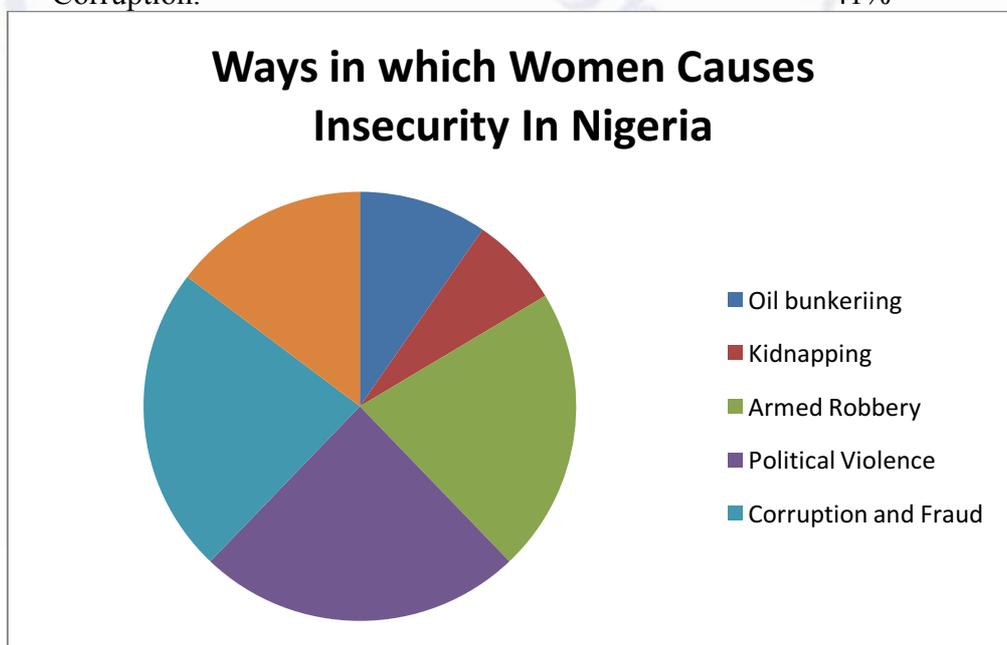
Summary of the Findings

The following findings were made:

(i)   Religious and cultural beliefs are the major causes of gender inequality in Nigeria.

(ii)   The major strategy to promote gender equality is to create awareness of everyone to the benefit that can drive national development through gender equality.

(iii)   The major ways to promote National security through gender equality and the empowerment of women and girls is education and more empowerment through poverty alleviation programmes and also to create awareness of everyone to the benefit that can drive national security through gender equality.

(iv)   Women are more in civil service jobs like Nurses, Teachers, Secretaries and etc than other sector in the Nigerian economy.

(v)   From the analysis of the study southern women are the major set of people who want gender equality in Nigeria.

<u>Strategies to achieve National Security through Gender Equality and the Empowerment of Women and Girls in Nigeria</u>

For the purpose of this research some strategies were derived from the result of the analysis of the study. These include:

- Educational Empowerment of Women
- Economic Empowerment of Women
- More Political Appointment for Women
- Awareness should be made to everyone on the benefit of gender equality as it relates to National Security in Nigeria.
- Women should be more confident, know their right, and believe there is nothing they can't achieve.
- Men should start accepting the fact that both genders are equal and should be given same treatment everywhere at all time.

Conclusion and Recommendations

Conclusion

This paper has examined the issue of gender inequality and the empowerment of women and girls in Nigeria and its effect on National Security.

Some issues that are central to women and national security include high rate of poverty and illiteracy, culture and religious belief. All these constitute a major source of insecurity in Nigeria.

It is quite glaring that gender equality implies equal rights, opportunities, and treatment for women and men, girls and boys in all spheres of life. It equally implies that both men and women are free to develop their personal abilities and make choices without the limitations. If women are well empowered and have proper orientation about life and what it takes to become whatever they want to be irrespective of their gender, religion and culture, then it will be difficult for any evil group to use them to perpetrate their evil deeds thereby enhancing national security.

Nigeria is therefore called upon to be part of global trend towards gender equality although significant strides have been made in many countries of the world to bridge gender gaps, and advance gender equality, in compliance with the demands of international instruments on women's right, most countries like Nigeria are still lagging behind especially in strategic positions for example Women in the upper chamber of the National Assembly is 7 out of 109 Senators and 14 in the Green Chamber of 360 Legislature, altogether which is equivalent to 4.4% of the whole National Assembly. So also the Federal Executive Council have 3 Women out of 36 Ministers which is just 8.3%.

Nigeria cannot afford to continue to treat half of its population and a significant part of the productive force as inferior being. We need to give our women the full chance to participate in all sectors of society. The roles of women as house makers cannot be down played. To achieve gender equality in Nigeria, economic and political powerlessness of women must be addressed. Our governments should therefore realize that intelligence and ability are more relevant in solving the problem of any society or nation than gender classification. Giving women equal right of participation in the scheme of things will in no small measure engender a meaningful and sustainable national (and global) development thereby enhancing national security.

Gone should be the days when we say "Behind every successful man there must be a woman rather we should see this as "Beside every successful man there should be a successful woman".

Recommendations

The problem of gender inequality in Nigeria is further compounded by weak institutional capacities and insufficient prioritisation of resources which undermine the effectiveness of existing laws and efforts. Therefore, in terms of the link between gender equality and national security, empowerment of women and girls needs to be prioritised in national and regional development agendas (AFDB, 2012).

Hence, some recommendations were derived from this study:

1.An urgent Review of all Gender Discriminatory Laws in Nigeria
Nigerian government should endeavour to review all gender discriminatory laws that still exist in the pages of our statute books in order to demonstrate her total commitment to eradicate gender inequality in Nigeria.

2. Uprooting of all Obnoxious Traditional Practices that Impede the Rights of Women
The Nigerian government should collaborate with traditional rulers in Nigeria and other stakeholders to ensure that all harmful and traditional practices which target only women, are uprooted.

3. Economic Empowerment of Women
It is high time Nigerian government increased women's presence at the labour market by granting women more loan to start up businesses to reduce poverty and insecurity level in Nigeria. (Uche Onuma, 2016.)

5. More Educational Empowerment of Women
Compulsory girl-child education which Nigeria has already adopted should be enforced and sustained.

6. More Political Appointment for Women
Nigerian government is called upon to beef up her political appointive positions for women. The present appointments still fall short of the international expectation, that 35 per cent of all political appointment should be reserved for women.

9. Enactment of Female Based Specific Law
It is apparent from this discourse that there is every need to enact gender specific laws to curb gender violence.

10. The Role of the Media.
The government should use the media to devise more effective awareness raising programmes for women especially in the grassroots.

11. Establishment of more Internet Portals to Foster Dialogue for the Promotion of Gender Equality.
This portal will create an avenue of reaching out to the public or the internet, by Fostering a dialogue on the importance of gender equality

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National defence college dept of science and tech
This questionnaire is designed to obtain information on gender equality and the empowerment of women and girls in nigeria – the way forward to national security, it is purely for academic purpose and all information supplied will be treated confidentially to be completed by the respondents
Tick (   ) or Complete as appropriate

1. Sex Female (   )   Male (   )
2. What is your State? ....
3. What is your occupation? ....
4. What is your age bracket? 15 – 30 (   )   30 – 60   (   ) 60 & above ( )
5. What religion do you practice? Christianity (   ) Muslim (   )   Others (specify)
6. Which child do you prefer most? Female (   )   Male (   ) Neutral (   )
7. Would you have preferred if you are the opposite sex? Yes (   )No(   )
8. Do you believe in gender equality? Yes (   )   No (   )
9. Can you allow your wife to hold a higher position than yours? Yes (   ) No ( )
10. Will you agree with your husband if he disallowed you from holding a certain high position? Yes   (   )   No (   )
11. Do you think Governance in Nigeria is gender equal? Yes (   ) No (   )
12. Which of this would you not allow your female child or wife to become? Politician (   ) Soldier (   )   pilot (   )   sailor (   )   Medical Doctor (   ) lawyer (   ) others (specify)...............
13. Why do you think women should not be high position?
    (i) It makes them neglect their role as a woman at home? (   )
    (ii) It makes them feel superior and proud to their husband? (   )
    (iii) Women are supposed to be at home cooking and taking care of kids and husband (   )

14. What is the major way in which you think women has caused Insecurity in Nigeria? Boko Haram Suicide Bombing (   ) Illegal Oil Bunkering (   ) Kidnapping (   ) Armed Robbery (   ) Political Violence (   ) Corruption (   )

15. In what way do you think National security can be achieved through gender equality in Nigeria? Educational Empowerment of Women (   ) Economic Empowerment of Women (   ) Establishment of More Gender Violation Monitoring Agencies (   ) More Political Appointment for Women (   )
16. In how many years to come do you see gender equality coming to reality in Nigeria? ....

Thank you.

Factors Affecting the Probability of Local Government Financial Statement to get Unqualified Opinion

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Abstract
Policy of regional autonomy in Indonesia had an impact on the financial accountability of local governance that led to the issuance of the financial statements of local governments. Based on Law 15 of 2004 the Supreme Audit Agency of BPK is the only which authorized to carry out financial audit of the financial statements of local governments and provide an audit opinion. Unqualified opinion is the best opinion given by BPK on the financial statements of local governments that complied with the Government Accounting Standards and free from materiality misstatement. This study is aimed to determine factors that affect the probability for local government financial statements to obtain unqualified opinion. Quantitative methods of probit logistic regression is used in this study. It can be seen that the amount of assets, grant expenditures, audit recommendations, and the completion of the audit recommendations followed-up have significant impact on the probability of local government financial statements to obtain unqualified opinion.

Keywords: audit of the financial statements of local governments, unqualified opinion, audit recommendations, completion of the audit recommendations followed-up, probit logistic regression.

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Introduction

In regional autonomy era, the good financial management is crucial in the context of accountability of public officials to the local stakeholders. Local government financial statements (LKPD), published annually by the government is one of that formal accountability of the local government. Such obligations as mandated in Article 56 paragraph (3) of the Constitution - Law (UU) 1 of 2004 on State Treasury, which reads "*LKPD is submitted by governors /regents/mayors to the Indonesia Supreme Audit Board (BPK) no later than 3 (three) months after the fiscal year ends*". While Article 17 paragraph (2) of Law 15 of 2004 on the Audit of Management and Accountability of the State Finance, said "*the audit report of LKPD have to submitted by the BPK to the Regional Representatives Council (DPRD) no later than 2 (two) months after receiving LKPD from the local government*". From this provision it is clear that local government must complete its LKPD and submitted to the BPK for audit no later than March 31 next fiscal year. Furthermore, the BPK must conduct audit and provide an opinion on the LKPD no later than May 31 next fiscal year.

BPK has carried out the audit of LKPD for the fiscal year 2014, published in the First Semester Audit Results Summary (IHPS I) of BPK. There is a significant development of the audit this year compared with the previous year in increasing the number of local governments that receive unqualified opinion (WTP). In 2007 only four local governments obtained WTP or 0.86% of the total of 464 entities. However, within seven years in 2014 there were 251 local governments that received WTP or 49.90% of the total of 503 entities. The following charts is the financial opinion development of the regional government entities from 2007 through 2014:
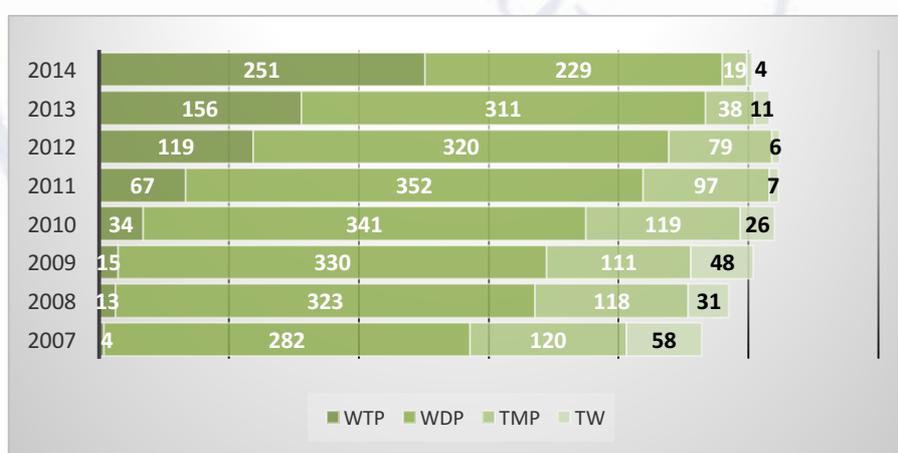
Charts 1: The development of local government audit opinion
Sources : IHPS BPK
WTP: Unqualified Opinion; WDP: Qualified Opinion; TMP: Disclaimer Opinion; and TW: Adverse Opinion

Many factors affect to obtain the WTP opinion for financial statements. These factors are to be considerate by the auditor of BPK, such as lack of confidence auditors on accounts in the local government's financial statements. Data obtained from IHPS I 2015 showed that the cause was not given WTP opinion due to accounts exclusion especially on asset and expenditure. The following table shows the empirical data:

Table 1: Accounts Exclusion List

Accounts	Amount of Exclusion
Cash	64
Receivables	39
Inventories	37
Investments	65
Fixed Assets and Other Assets	230
Third Party and Current Liabilities	23
Local Income	21
Local Expenditures	73
Others	4

Sources: IHPS I 2015

The highest exclusion account is fixed asset and other assets which are occurred in 230 entities of local governments while the second is local expenditures account in 73 regional entities. In addition, the auditor also considers other factors such as audit recommendations, and the completion of the audit recommendations followed-up.

This study aimed to identify factors that affect the probability for local government financial statements to obtain WTP opinion, so this study has the problem as follows:
1. Is there a significant difference between local government entities that acquire WTP opinion and non WTP?
2. What factors affecting the probability local government in obtaining the WTP opinion?

Literature Study
The purpose of the financial statements audit is to give an opinion the fairness of the financial information presented in the financial statements. According to Law 15 of 2004 article 16 paragraph (1) "*opinion is a auditor professional statement on the fairness of financial information presented in the financial statements*". The criteria consideration in awarding the audit opinion are:

1. compliance with government accounting standards;
2. adequate disclosures;
3. compliance with laws and regulations; and
4. the effectiveness of the internal control system (SPI).

According to Technical Bulletin (Bultek) 01 of State Financial Auditing Standard (SPKN), the results of the financial audit is opinion on the financial statements which is consist of unqualified opinion (WTP), qualified opinion (WDP), adverse opinion (TW) and disclaimer opinion (TMP). According to Elder et. al. (2010: 48) the standard unqualified audit report is issued when the following condition have been met:

1. All statements – balance sheet, income statement, statement of retain earnings, and statement of cash flows – are included in financial statements;
2. The accounting standard has been followed in all respects on the engagement:

3. Sufficient appropriate evidence has been accumulated, and the auditor has conducted the engagement in a manner that enables him or her to conclude that the accounting standard of field work have been met; and
4. The financial statements are presented in accordance Indonesia Governmental Accounting Standard (SAP)
5. There are no circumstances requiring the addition of an explanatory paragraph or modification or wording of the report

The most important requirements which is developed by the Elder's is following SAP for local governmental financial statements. SAP is issued based on Government Regulation 71 of 2010.

Audit recommendations is an integral part of the audit report. Article 1 point 12 Law 15 of 2006 said that recommendation is an advice from the auditor based on his/her audit, addressed to official persons and/or entities to take correction action. Recommendations given by the auditor are required to be followed in the form of the completion of the audit recommendations followed-up. Audit recommendations are expected to have a negative relationship to the probability in obtaining WTP opinion. The more recommendations indicate that local government has more problem in financial management so it will minimize the probability in obtaining WTP opinion.

Auditor recommendations are required to be followed by the auditee. According to article 20 of Law 15 of 2004:

(1) Officials should follow the recommendations in the audit report;
(2) Officials are required to provide an answer or explanation to the BPK as the follow up on the recommendations in the audit report; and
(3) response or explanation referred to in paragraph (2) shall be submitted to the BPK no later - than 60 (sixty) days after the audit reports be accepted.

In more detailed the audit recommendation followed-up regulated in BPK Decision No. 1/K/I-XIII.2/3/2012 on Technical Guidelines for monitoring of audit recommendation followed-up, the audit recommendations should be thoroughly followed up by the auditee a maximum of 152 days since the audit recommendation issued, if within a period of 152 days has not been or are not followed up, BPK should submit its findings and recommendations to the authorities or law enforcement apparatus (APH). Further BPK examine the official answer no later than one month after an answer is received from the officials. Results of the review are classified as follows:
1. Follow-up in accordance with the recommendation;
2. Follow-up is not in accordance with the recommendation;
3. The recommendation has not been followed up; or
4. Recommendations are not actionable.

Follow-up on the audit recommendation in accordance with the recommendations is estimated to have positive relationship with the probability for the local government to obtain WTP opinion. More and more follow-up on the audit recommendation in accordance with the recommendations will lead to increasing probability for the local government to obtain WTP opinion.

Statement of Government Accounting Standards (PSAP) No. 01 defines tangible assets are assets that have a useful life of more than 12 (twelve) months to be used, or intended for use, in government activities or used by the community. In more detail PSAP 08 on fixed assets, fixed assets are classified based on the similarity in the nature or function in the operating activities of the entity. Classification of fixed assets is as follows:

1. Land;
2. Equipment and Machinery;
3. Building;
4. Roads, Irrigation, and Network;
5. Other Fixed Assets; and
6. Construction in Progress.

International Financial Reporting Standard (IFRS) defines assets as tangible assets consisting of property, plant and equipment. According to Mirza (2005:108)[1] Tangible asset that are held for use in production or supply of goods and services, for rental to others, purpose for administrative purpose and are expected to be used during more one period.

The big amount of fixed assets is expected to have a negative or positive relationship to the probability of local governments to obtain WTP opinion. The larger amount of fixed assets amount is approximated given more exceptions by the auditor that affect the probability of obtaining WTP opinion. Otherwise, the well managed fixed asset will give positive influence to the auditor in determining audit opinion. The more fixed asset will increase the planning materiality in audit.

According to article 1 point 14 Regulation of the Minister of Home Affairs Number 32 on 2011 on Guidelines for Grant Aid and Social Originating from Local Government Budget (APBD) defines grant is giving money/goods or services from the local government to government or other local governments, regional companies, communities and civil society organizations, which specifically predetermined allotment, are not mandatory and not binding, and does not continuously aiming to support the implementation of local government affairs.

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[1] Mirza, Abbas Ali., Orell, Magnus., Holt, Graham J., IFRS Practical Implementation Guide and Workbook Second Edition., 2008., John Wiley & Sons, Inc.

Research Methods

The number of local government entities in Indonesia comprising 34 provinces, 73 municipalities and 460 regions. Municipalities and regions are object of this research. There are 523 municipalities and regions as research population. Purposive sampling method is used to select sample of population. The Provision of purposive sampling as follows:

1. Regions and Municipalities are located in Eastern Indonesia
2. The local government of Regions and Municipalities who have received audit opinions from the BPK in fiscal year 2014
3. The local government whose getting audit recommendations from BPK
4. The local government has partially made following-up the audit recommendations

Nonparametric comparative descriptive method is used to answer the first research question whether there are significant differences between the entities that obtain WTP opinion with entities that get non WTP opinion. To test or not difference used nonparametric approach *One Sample t Test*[2]. The Hypothesis that was developed is:

$H_0:$	There were no significant differences between the entities that obtain WTP opinion with entities that get non WTP opinion
$H_1:$	There were significant differences between the entities that obtain WTP opinion with entities that get non WTP opinion

So the statistical hypothesis is as follows:

$$Ho: \rho_1 = \rho_2 \qquad H_1: \rho_1 \neq \rho_2$$

Test the difference between independent variables with the audit opinion category used *Mann Whitney U Test*. The data processing use SPSS version 21 statistical applications.

To answer the second research question, the research use inferential parametric logistic regression approach. Logistic regression which is often called the qualitative response regression model[3] is a model of probability of occurrence is influenced by the factors considered. The use of dummy category in response variables. The auditee that obtain WTP opinion is given category 1 (one) and the entities that get non WTP opinion is given category other than 0 (zero).

The operationalization of variables in detail in this study are as follows:

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[2] Panduan Aplikatif dan Solusi., *Mengolah Data Statistik Hasil Penelitian dengan SPSS 17.*, 2010., Wahana Komputer

[3] Gujarati, Damodar N., *Basic Econometrics.*, Fourth Edition., 2003., McGraw Hill

Table: The operationalization of Variables

Variable	Notation	Indicator	Measurement	Scala	Relationship to Response Variable
Independent Variable of Audit Recommendation	RkomRp	Amount of audit recommendation that issued by auditor in local government financial statements audit	Billion Rupiah	Ratio	Negative
Independent Variable of Completion of Audit Recommendation Followed-up	TLRHP	The portion of the completion of audit recommendation followed-up to total recommendations	Percentage	Ratio	Positive
Independent Variable of Fixed Asset	Aset	Amount of Fixed Asset that owned by local government as stated in balance sheet	Trillion Rupiah	Ratio	Positive or Negative
Independent Variable of Grant Expenditures	LnBhibah	Amount of grant expenditure that realized by local government as stated in budget realization report	Log Natural	Ratio	Negative
Response Variable of audit opinion	Opini	Audit opinion for financial statement that obtained by local government	*Dummy Variables* 1: Entities whose obtain WTP opinion 0: Entities whose obtain non WTP opinion	Ordinal	

Based on the hypothesis development, this study regresses four (4) independent variable to 1 (one) response variable. The design of the research is as follows:
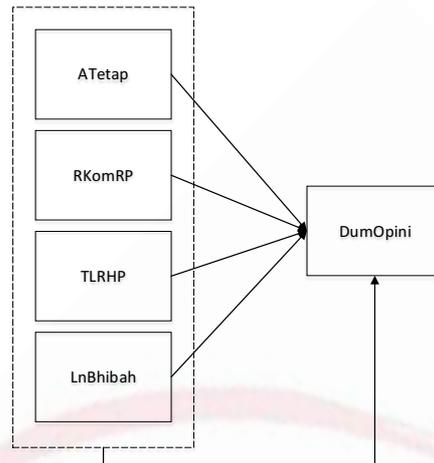
Figure: Research Design

Logistic regression models were generated in this study are as follows:

$$p(Opini) = \frac{1}{1 + e^{-\left(b_o + b_1 RkomRp + b_2 TLRHP + b_3 Aset + b_4 LnBHibah + e\right)}}$$ (1)

or by mathematical transformation of logistic regression model was changed to be:

$$Ln\left(\frac{p(Opini)}{1 - p(Opini)}\right) = b_o + b_1 RkomRp + b_2 TLRHP + b_3 Aset + b_4 LnBHibah + e$$ (2)

Before the research hypotheses was statistically tested, the logistic regression model generateed should be tested by using goodness of fit test of Hosmer-Lomeshow Test. The Hypotheses of goodness of fit test is:

H_0 :	Fit Model
H_1 :	Unfit Model

In the final stages of this research, hypotheses testing by using signficant level of 5% to determine whether the independent variables significantly affect the response variable. Hypotheses constructed in this stage is:

H$_o$	:	$b_1 = b_2 = b_3 = b_4 = 0$	There were no significant effect of independent variables to response variable individually or simultaneously
H$_1$	:	$b_1 \neq b_2 \neq b_3 \neq b_4 \neq 0$	There were significant effect of independent variables to response variable individually or simultaneously

The data processing application for this stage is Minitab version 17.

Result

Based on a purposive sampling process, of the 523 population of regions and municipalities has been selected 155 samples. The complete samples list are:

Table: Sample List

1	Kab. Bangli	41	Kab. Katingan	81	Kab. Sumba Barat Daya	121	Kab. Wajo
2	Kab. Badung	42	Kab. Sukamara	82	Kab. Sumba Tengah	122	Kota Makassar
3	Kab. Buleleng	43	Kab.. Berau	83	Kab. Sumba Timur	123	Kota Parepare
4	Kab. Gianyar	44	Kab.. Kutai Barat	84	Kab. Timur Tengah Selatan	124	Kab. Barru
5	Kab. Karangasem	45	Kab.. Kutai Timur	85	Kab. Lanny Jaya	125	Kab. Bulukumba
6	Kab. Klungkung	46	Kab.. Penajam Paser Utara	86	Kab. Mappi	126	Kab. Gowa
7	Kab. Gorontalo Utara	47	Kota Balikpapan	87	Kab. Puncak Jaya	127	Kab. Luwu Utara
8	Kota Gorontalo	48	Kota Samarinda	88	Kab. Jayapura	128	Kab. Pangkep
9	Kab. Boalemo	49	Kab.. Kutai Kertanegara	89	Kab. Jayawijaya	129	Kab. Pinrang
10	Kab. Bone Bolango	50	Kab.. Bulungan	90	Kab. Kepulauan Yapen	130	Kab.. Buol
11	Kab. Gorontalo	51	Kab.. Malinau	91	Kab. Merauke	131	Kab.. Morowali
12	Kab. Pohuwato	52	Kota Nunukan	92	Kab. Mimika	132	Kab.. Parigi Moutong
13	Kab. Kapuas Hulu	53	Kota Tarakan	93	Kab. Nabire	133	Kab.. Poso
14	Kab. Kayong Utara	54	Kab. Buru	94	Kab. Yalimo	134	Kab.. Sigi
15	Kab. Ketapang	55	Kab. Maluku Tenggara Barat	95	Kab. Asmat	135	Kab.. Tolitoli
16	Kab. Kubu Raya	56	Kab. Kepulauan Sula	96	Kota Jayapura	136	Kota Palu
17	Kab. Melawi	57	Kab. Halmahera Barat	97	Kab. Fakfak	137	Kab.. Bangkep
18	Kab. Sambas	58	Kab. Halmahera Timur	98	Kab. Teluk Wondama	138	Kab.. Donggala
19	Kab. Sanggau	59	Kab. Halmahera Utara	99	Kab. Maybrat	139	Kab. Buton Utara
20	Kab.Bengkayang	60	Kota Ternate	100	Kab. Raja Ampat	140	Kab. Kolaka
21	Kota Singkawang	61	Kota Tidore Kepulauan	101	Kota Sorong	141	Kab. Kolaka Utara
22	Kab. Landak	62	Kab. Bima	102	Kab. Kaimana	142	Kab. Konawe
23	Kab. Sekadau	63	Kab. Dompu	103	Kab. Sorong	143	Kab. Wakatobi
24	Kab. Sintang	64	Kab. Lombok Barat	104	Kab. Sorong Selatan	144	Kab. Buton
25	Kota Pontianak	65	Kab. Lombok Timur	105	Kab. Mamasa	145	Kota Kendari
26	Kab. Hulu Sungai Utara	66	Kab. Lombok Utara	106	Kab. Majene	146	Kab. Kepulauan Talaud
27	Kab. Tabalong	67	Kab. Sumbawa Barat	107	Kab. Mamuju Utara	147	Kab. Minahasa Selatan
28	Kab. Tapin	68	Kota Bima	108	Kab. Polewali Mandar	148	Kab. Minahasa Tenggara
29	Kab. Balangan	69	Kota Mataram	109	Kab. Mamuju	149	Kab. Bolaang Mongondow Utara
30	Kab. Hulu Sungai Selatan	70	Kab. Lombok Tengah	110	Kab. Jeneponto	150	Kab. Minahasa
31	Kab. Hulu Sungai Tengah	71	Kab. Kupang	111	Kab. Takalar	151	Kota Manado
32	Kab. Tanah Bumbu	72	Kab. Alor	112	Kota Palopo	152	Kab. Bolaang Mongondow Timur
33	Kab. Tanah Laut	73	Kab. Belu	113	Kab. Bantaeng	153	Kab. Kepulauan Sitaro
34	Kota Banjarmasin	74	Kab. Ende	114	Kab. Enrekang	154	Kota Kotamobagu
35	Kab. Barito Timur	75	Kab. Flores Timur	115	Kab. Luwu	155	Kota Tomohon
36	Kab. Pulang Pisau	76	Kab. Manggarai	116	Kab. Luwu Timur		
37	Kab. Gunung Mas	77	Kab. Manggarai Timur	117	Kab. Sidrap		
38	Kab. Kotawaringin Timur	78	Kab. Ngada	118	Kab. Soppeng		
39	Kab. Murung Raya	79	Kab. Sabu Raijua	119	Kab. Tanatoraja		
40	Kab. Seruyan	80	Kab. Sumba Barat	120	Kab. Toraja Utara		

Kab. stand for Kabupaten which mean regency; Kota is municipality

Variable *Atetap* has average value of Rp 2.099 trillion, which the lowest value of Rp 74 billion in Mappi regency-Papua and the highest Rp 20.139 trillion in Kutai Kertanegara regency-East Kalimantan. The average of *RKomRp* Variable is Rp5.999 billion, with the highest values occur in Mimika regency-Papua amounted to Rp73.215 billion and the lowest in Sigi regency-Central Sulawesi Rp 20 million. *TLRHP* variable has average 22.97%, which the lowest of 1% in Asmat regency-Papua, Morowali regency-Central Sulawesi, Ketapang regency-West Kalimantan, and Bone Bolango regency-Gorontalo and the highest of 90% in East Luwu regency-South Sulawesi. As for the *LnBhibah* variable has average of Rp $e^{23.256}$ the highest in Manggarai Timur regency-East Nusa Tenggara Rp$e^{26.855}$ and the lowest Rp $e^{19.167}$ occurs in Sitaro Islands regency-North Sulawesi. Table shown the descriptive statistics of variables:

Table: Descriptive Statistics

Descriptive Statistics: Atetap, RkomRp, TLRHP, LnBhibah						
Variable	N	Mean	SE Mean	StDev	Minimum	Maximum
Atetap	155	2.099	0.170	2.113	0.074	20.139
RkomRp	155	5.999	0.897	11.163	0.002	73.215
TLRHP	155	22.97	1.29	16.04	1.00	90.00
LnBhibah	155	23.256	0.107	1.331	19.167	26.855

Non-parametric test results showed t count for 7.196 is greater than t table or we can see from the significant value that is smaller than the value of 0.05 so that the test results indicate to reject H_0 that there is significant difference between the local governments who obtain WTP opinion and non WTP opinion as in following table:

Table: Non Parametric Test Result

One-Sample Test						
				Test Value = 0		
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Opini	7.196	154	.000	.25161	.1825	.3207

While the test results Mann Whitney U Test can be seen in the following:

Table : Mann Whitney U Test Result

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of RKomRp is the same across categories of Opini.	Independent-Samples Mann-Whitney U Test	.002	Reject the null hypothesis.
2	The distribution of TLRHP is the same across categories of Opini.	Independent-Samples Mann-Whitney U Test	.063	Reject the null hypothesis.
3	The distribution of Aset is the same across categories of Opini.	Independent-Samples Mann-Whitney U Test	.203	Retain the null hypothesis.
4	The distribution of BHibah is the same across categories of Opini.	Independent-Samples Mann-Whitney U Test	.438	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .10.

With the critical value of 10%, it can be seen that the *RKomRp* and *TLRHP* variable statistically different between the local governments who get WTP opinion and non WTP. As for the *Atetap* and *LnBhibah* variable was not statistically different.

To answer the second research question, it can be done through a logistic regression model generated which consisting of independent variables ATetap, RKomRp, TLRHP and LnBhibah against response variable of DumOpini. Output of Minitab 17 application shown in the following table:

Table : Logistic Regression Model

```
Binary Logistic Regression: OpiniDum versus Atetap, RkomRp, TLRHP, LnBhibah


Method
Link function  Logit
Rows used      155


Response Information
Variable  Value  Count
OpiniDum  1         39  (Event)
          0        116
          Total    155


Regression Equation
P(1)  =  exp(Y')/(1 + exp(Y'))
Y' = 5.03 + 0.1686 Atetap - 0.1737 RkomRp + 0.0336 TLRHP - 0.224 LnBhibah


Deviance Table
Source        DF  Adj Dev  Adj Mean  Chi-Square  P-Value
Regression     4   21.635     5.409       21.63    0.000
  Atetap       1    3.189     3.189        3.19    0.074
  RkomRp       1   15.308    15.308       15.31    0.000
  TLRHP        1    6.053     6.053        6.05    0.014
  LnBhibah     1    2.142     2.142        2.14    0.143
Error        150  153.236     1.022
Total        154  174.871


Odds Ratios for Continuous Predictors
            Odds Ratio     95% CI
Atetap          1.1837  (0.9869, 1.4196)
RkomRp          0.8406  (0.7306, 0.9670)
TLRHP           1.0342  (0.9993, 1.0054)
LnBhibah        0.7997  (0.5915, 1.0811)


Goodness-of-Fit Tests
Test              DF  Chi-Square  P-Value
Deviance         150      153.24    0.411
Pearson          150      141.09    0.687
Hosmer-Lemeshow    8       11.77    0.162


Measures of Association
Pairs      Number  Percent  Summary Measures         Value
Concordant   3243     71.7  Somers' D                 0.44
Discordant   1265     28.0  Goodman-Kruskal Gamma     0.44
Ties           16      0.4  Kendall's Tau-a           0.17
Total        4524    100.0
```

In *Response Information* table shows that of the 155 local government observed that there are 39 local governments obtain WTP opinion and 16 non WTP opinions. In *Logistic Regression* table, the logistic regression model generated is:

$$Ln\left(\frac{p(Opini)}{1 - p(Opini)}\right) = 5.03 + 0.1686\,Atetap - 0.1737\,RkomRp + 0.0336\,TLRHP - 0.224\,LnBHibah + e \qquad (3)$$

The logistic regression model above shows that relationship in accordance with the research hypothesis development. *Atetap* and *TLRHP* variable provide a positive influence to the probability in obtaining WTP opinion. On the other hand, *RKomRp* and *LnBhibah* give negative influence to the probability in getting WTP opinion.

In *Deviance* table shows the *p-value* of the *RKomRp* and *TLRHP* variable are 0.000 and 0.014 which is smaller than the 5% or 0.05 so that these variables have influence

the significant influence to the probability in obtaining WTP opinion. In other words, this has strong reason to reject H_0 in the statistical hypothesis above. The *ATetap* variable has *p-value* of 0.074 that has significant influence in 10% critical value. Whereas *LnBhibah* variable does not have a significant influence on obtaining WTP opinion. Due to its *p-value* of 0.143 which is higher than 5% as well as 10%.

In *Odds Ratios for Continuous Predictors* table, odds ratio value for *Atetap* variable is 1.1837 that the incresing of Rp 1 trillion in fixed asset shall increase the probability in obtaining WTP opinion as big as 18.37%. *RKomRp* variable has odd ratio value of 0.8406 the increasing of Rp 1 billion in audit recommendation has consequences of decreasing 15.63% in probability of gaining WTP opinion. The growth of settlement or completion audit recommendation followed-up as big as 1% will lead 3.42% of the probability in obtaining WTP. That can be seen in odd ratio value of 1.0342 in TLRHP variable.

In *Goodness-of-Fits Test* table shows the Hosmer-Lemeshow test, Pearson and Deviance give a *p-value* greater than 0.05 so it can be decided to accept H_0 and say the model has a good fit model. The logistic regression model can be used to predict the value of the response variable (the probability of obtaining opinions WTP) by the independent variable (fixed assets, audit recommendation, audit recommendation followed-up).

Measure of Association table is used to measure the closeness of the relationship between the response variable with the predicted value. Somers'D association value and Goodman-Kruskal-value of 0.44. While the value of the association Kendall's Tau-a 0.17.

Conclusion
There is a significant difference between local governments gain WTP and non WTP opinion. Unqualified Opinion is one indicator of accountable financial management. The local government should seriously consider the factors that affecting in obtaining the WTP opinion from BPK. In this study is empirically evidenced that fixed assets, audit recommendation followed-up and audit recommendation have a significant influence for the probability of obtaining the WTP opinion.

Well managed fixed assets by local government have a positive influence to the probability for obtaining the WTP opinion. Similarly with the results of audit recommendation followed-up that need to be seriously resolved by the local government. The auditor recommendations also give significant impact on the audit opinion because the government must implement good financial governance so the fewer the recommendations given by the auditor.

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Buletin Teknis (Bultek) 01 SPKN paragraf 13

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Analysis of Social Economics District Proliferation in Indonesia

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Abstract

Regional proliferation in Indonesia for the period 1999-2004 occurred rapidly and reached 114 new districts proliferation. The new 114 districts can be mapped with Klassen Typology for determining the areas of experiencing economic growth and high per capita income by comparing the growth of the district division with an average value of economic growth and per capita income of the each province. But there are weaknesses in the typology, as the classification does not reflect a "local forward and fast-growing" because it has some indicators such as life expectancy, per capita expenditure and local revenue that has an average value which is lower than the area in other classes , On Typology Klassen is not known distance from each district division. Therefore, to obtain a better picture in the mapping, then Typology Klassen improved by incorporating other economic indicators. With the modified classification Klassen Typology this, plotting the results of the district division in quadrants can be known distance from each district in one class and between classes. Klassen's adoption of a more flexible modification to map the district or city or province with a wider indicator.

Keywords: Klassen Typology, regional proliferation.

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Introduction
Proliferation of the region during the period 1999 to 2004 has formed 148 new autonomous region, which consists of 7 (seven) provinces, 114 regencies and 27 cities. The research object is 114 new districts. The proliferation area is the integration of sectoral and institutional (Anwar and Rustiadi, 2000). The aim is to achieve economic growth, equity and sustainability of ecosystems.

Socio-economic science perspective in spatial analysis on 114 new district is intended to put more emphasis on "what is the problem" (what) and "why the problem happened" (why). Spatial aspects are not defined of the sense of the position or location, but rather on the problem. Even the spatial aspect is considered only has the meaning if there is a clear problem in it. Because of the focus on understanding the causes of the problems, the spatial context is more often using terms that have "meaning" in the perspective of socio-economic sciences, such as villages, towns, regions, central and hinterland (rural area).

According to Yulistiani et al. (2007), another analysis is required to analyze economic growth of the new autonomous region by using Klassen Typology analysis. The analysis can map and classify of areas according to economic growth and income per capita. The classification is measured based on the value of the provincial average. Economic growth is in the vertical axis, while income per capita is in the horizontal axis. Accordingly, we shall obtain 4 classifications consist of (1) local fast forward and fast growth (high growth and high income), (2) developed areas but depressed (high income but low growth), (3) the area is growing fast (high growth but low income), (4) underdeveloped (low growth and low income). Schematically can be described as follows:

Table 1. Klassen Typology Classification Matrix of Districts/Cities

Growth Rate (R)	Income per Capita (Y)	
	$Y_i > Y$	$Y_i < Y$
$R_i > R$	Developed and Fast Growth Area	Fast Growth Area
$R_i < R$	Developed and Depressed Area	Underdeveloped Area

Where :
Ri   = Districts/Cities Economic Growth
R   = National Economic Growth
Yi   = Districts/Cities Income per Capita
Y   = National Income per Capita

Problems
The Klassen Typology analysis for 114 new districts conducted on in this study. The period of analysis are from 2005 to 2009 (Indonesia Center Bureau of Statistics (CBS), 2010) to determine the pattern and structure of economic growth in each region.

Typology area is basically divided areas into regional economic growth and per capita income of the area. By determining the average economic growth as the vertical axis and the average income per capita as the horizontal axis, the area observed can be divided into four classifications, namely: the area of fast forward and fast growth (high growth and high income), developed regions but depressed (high income but low growth), a fast growing area (high growth but low income), and the area is relatively underdeveloped (low growth low income) (Hill, 1989 and Kuncoro, 1996 in Kuncoro, 2004).

Table 2. Classification Matrix of 114 New Districts according to Klassen Typology

Tingkat pertumbuhan (R)	PDRD per Kapita (Y)	
	$Y_i > Y$	$Y_i < Y$
$R_i > R$	Belitung Timur**, Boven Digoel, Kuantan Singingi, Kutai Timur**, Mimika, Mamuju Utara, Kepahiang, Parigi Moutong, Morowali**, Halmahera Timur (10 Districts). **(Developed and Fast Growth Area)**	Luwu Utara, Waropen, Bombana, Konawe Selatan, Solok Selatan, Gayo Lues, Bengkayang, Teluk Wondama, Dharmasraya, Serdang Bedagai, Bener Meriah, Bireun, Keerom, Peg. Bintang, Seluma, Rote Ndao, Tojo Una2, Kep. Aru, Simeuleu, Sekadau, Wakatobi, Tolikara, Puncak Jaya, Asmat, Rokan Hulu*, Pelalawan*, Sarolangun*, Banyuasin*, Ogan Ilir*, Nunukan**, Penajam Pasir Utara*, Teluk Bintuni*, Siak, Bangka Barat (34 Districts) **(Fast Growth Area)**
$R_i < R$	Seruyan, Murung Raya, Balangan, Tanah Bumbu, Supiori, Sukamara, Luwu Timur, Banggai Kepulauan, Sumbawa Barat, Mappi, Pohuwato, Lebong, Kolaka Utara, Pasaman Barat, Kaimana, Lamandau, Katingan, Kep. Mentawai, Rokan Hilir*, Tanjung Jabung Timur*, Natuna* (21 Districts). **(Developed and Depressed Area)**	Nagan Raya, Sarmi, Malinau, Kutai Barat, Muko-2, OKU Timur, Buol, Landak, Tebo, Kep. Talaud, Pulang Pisau, Aceh Tamiang, Aceh Jaya, Aceh Barat Daya, Lingga, Muaro Jambi*, Samosir, Minahasa Selatan, Gunung Mas, Minahasa Utara, Buru, Humbang Hasundutan, Barito Timur, Bangka Selatan, Karimun, Sorong Selatan, Mamasa, Pak-2 Barat, OKU Selatan, Nias Selatan, Yahukimo, Seram Bagian Timur, Lembata, Seram Bagian Barat, Kep. Sula, Halmahera Utara, Halmahera Selatan, Kaur, Manggarai Barat, Melawi, Boalemo, Maluku Tenggara Barat, Paniai, Bone Bolango, Way Kanan, Aceh Singkil, Lampung Timur*, Bangka Tengah*, Kep. Raja Ampat (49 kabupaten). **(Underdeveloped Area)**

Developed and Fast Growth Area
Besides of economic growth and income per capita, some indicators for Developed and Fast Growth Area" (10 districts) are:

1.   Life expectancy (AHH) on average is still below the national AHH, but higher than the class 'Developed and depressed areas', lower than the class 'fast growth areas' and 'underdeveloped area'.
2.   Expenditure per capita on average exceeded the national per capita spending, but lower than the 3 other classes.

3.   The average of study period is still below the national study period, but higher than 'Developed and depressed areas" and 'fast growth areas', but relatively lower than 'underdeveloped area'.

4.   Regional Gross Domestic Product (RGDP) at constant prices and at current prices on average exceed National GDP at constant prices and current prices nationwide, either with oil and gas and non-oil, and exceeded three other classes.

5.   Contribution of Locally generated revenue (PAD) is less than five percent of total budget and lower than three other classes.

The ten districts which fall into the 'Developed and Fast Growth' category is located in the province of Papua (Mimika and Digoel), the Province of Central Maluku (Morowali and Parigi Moutong district), Bangka Belitung (East Belitung), West Sulawesi (Mamuju Utara), Riau Province (Regency Kuantan Singingi), East Kalimantan (East Kutai Regency), Bengkulu Province (Kepahiang District), North Maluku (East Halmahera).

Developed and Depressed Area

Characteristics of the district division in the classification of "Developed and Depressed Area" as many as 21 districts, in addition to having the GDP per capita exceeds the province but a lower economic growth rate of the province, also has other characteristics, namely:

1.   Life expectancy on average is lower than the national AHH and the lowest among the other three classes.

2.   Expenditure per capita on average exceeded the national per capita expenditure, and higher than 'fast growth areas' and 'underdeveloped areas'.

3.   The average of study period is far below the national study period and lower 'underdeveloped areas' and 'fast growth areas'.

4.   (RGDP) at constant prices below the national GDP at constant price and RGDP at current prices exceeds the national average.

5.   Contribution of PAD to total budget is small, less than four percent, lower than the 'fast growth area' and 'underdeveloped.

The area which categorized 'Developed and Depressed areas' are: Central Kalimantan (District Seruyan, Sukamara, Lamanadau, Katingan, Murung Kingdom), South Kalimantan (Balangan and Tanah Bumbu), Central Sulawesi Province (District Bangagai Islands), Provincial South Sulawesi (Luwu Timur), East Sulawesi (Kolaka Utara), Gorontalo (Pohuwato), Bengkulu Province (Lebong), Sumatera Barat (West Pasaman and the Mentawai Islands), Nusa tenggaran West (Sumbawa west), Papua (District Supiori and Mappi), west Papua (Kaimana), Riau Province (Rokan Hilir), Jambi (East Tanjung Jabung), and the Riau Islands Province (Natuna).

Fast Growth Area

The Districts are classified as "fast growth area" as many as 34 districts, in addition to having the characteristics of the growth rate of the GDP per capita is lower than the provincial rate of economic growth and have exceeded the province, also has the following characteristics:

1.   The Average of AHH is under national AHH but higher than 'Developed and fast growth areas' and 'Developed and Depressed areas'.

2.   Expenditures per capita are exceeds the national and three others classes.

3.   The average study period is far below the average of national study period and lower than three other classes.

4.   Regional Gross Domestic Product (RGDP) at constant prices and at current prices on average lower than National GDP at constant prices and current prices nationwide, either with oil and gas and non-oil, and lower than 'Developed and Fast Growth areas' and 'Developed and Depressed areas' but haigher than 'Underdeveloped areas' three other classes well as lower than 'advanced and fast-growing areas' and .

5.   The contribution of PAD to total budget less than four percent and higher than the three others classes.

The 34 districts are located in the province of South Sulawesi (Luwu Utara), Sulawesi Tenggara (Bombana, Wakatobi, South Konawe), Central Sulawesi Province (Tojo Una-una), Papua (Waropen, Mountain Star, Keerom, Puncak Jaya, Asmat, Tolikara,), West Papua (Wondama bay and Bintuni bay), West Sumatra Province (South Solok and Dharmasraya), Nanggroe Aceh Darussalam (district of Gayo Lues, Bener Meriah, Bireuen, Simeulue), Sumatra north (Serdang Bedagai), Bengkulu Province (Seluma), Riau Province (Rokan Hulu, Pelalawan, Siak), Jambi (Sarolangun), South Sumatra Province (Banyuasin, and Ogan Ilir), Bangka Belitung (District Bangka Barat), Maluku (Aru Islands), West Kalimantan Province (Sekadau), East Kalimantan Province (District Penajem North Paser and Nunukan), East Nusa Tenggara (Rote Ndao),

Underdeveloped Areas
A total of 49 districts classified as 'Underdeveloped areas' besides of an economic growth rate and GDP per capita below than national, also has the following characteristics:

1.   The average AHH are lower than national but the highest between all classes.

2.   Expenditure per capita on average exceeded the national and higher than 'Developed and fast growth areas'.

3.   Regional Gross Domestic Product (RGDP) at constant prices and at current prices on average is far below the national GRDP and the lowest among the other classes.

4.   The contribution of PAD to total budget are four percent and higher than the "Developed and fast growth areas" and 'Developed and Depressed areas'.

5.

"The Underdeveloped areas" are located in the province of Aceh (Nagan Raya, Aceh Tamiang, Aceh Jaya, West Aceh, Aceh Singkil), South Sumatra Province (OKU District East, South OKU), Jambi (Muaro Jambi, and Tebo), Riau Islands Province (District Lingga, and Karimun), North Sumatra (Samosir, Humbang Hasundutan, South Nias, and Pak-pak West), Bengkulu Province (Muko-Muko, and Kaur), Bangka Belitung (District Central Bangka, and the South Pacific), Lampung (Way Kanan regency and East Lampung), Papua (Sarmi, Paniai and Yahukimo), West Papua Province (South Sorong regency, and Raja Ampat), East Kalimantan Province (KabupatenMalinau, Kutai Barat), West Kalimantan Province (Porcupine District, and Melawi), South Kalimantan (Pulang Knives), Central Kalimantan Province (Gunung Mas, and Barito Timur), Central Sulawesi Province (Buol), North Sulawesi (District Talaud Islands, Minahasa Selatan, Minahasa Utara), West Sulawesi (Mamasa), Gorontalo (Bone Bolango District, Boalemo), Maluku (Kabapaten Buru, Seram, West

Seram, Maluku Tenggara Barat), Maluku (Sula Islands, North and South Halmahera Halmahera), Province of NTT (the district, and Manggarai Barat).

Results and Suggestions
Some weaknesses of Klassen Analysis are excluded
1.   The rate of economic growth due to the economic growth figures represent the performance of the local economy.
2.   The per capita income (GDP per capita) cannot represent the level of economic welfare of society.
3.   The growth rate of the population, can support (or otherwise would hamper) their chances in achieving development objectives.
4.   Human Development Index (HDI), reflecting the basic capabilities of the population, level of education, and level of purchasing power.
5.   The poverty rate is a measure commonly used to represent the public welfare of the material.
6.   Revenue (PAD) contribution to the budget of revenues and expenditures (budget) reflects the performance of local governments in exploring their potential income
7.   Public services describe the performance of local governments in meeting the goal of establishing an autonomous region.
8.   social conditions reflect the population lives in areas of expansion, its activity, the role of community leaders and so on.
9.   The condition of the environment and natural resources, can describe the presence and absence of environmental damage, the concern of local governments in dealing with the environment, and awareness of the population will be living environment

Furthermore, to get a complete picture of the condition of the 114 districts, the rate of economic growth is placed on the x axis and the GDP per capita was placed on the y axis that forms four quadrants. Accordingly, none of the district division into categories quadrant I, "which is ideal autonomous regions" with high economic growth rate and the GDP per capita is high. Most districts are clustered in the division of the value of GDP per capita of less than Rp. 21,000,000, - and the economic growth rate at around 4-7 percent. Therefore, do controls (cut-off) at the rate of national economic growth and the GDP per capita nationwide.

By using the following assumptions: (1) cut-off economic growth rate 6.01 percent (2008) and (2) cut-off the GDP per capita amounted to Rp. 21,666,748, - (2008) was composed of a quadrant that mapped 114 new district / New Autonomous Region in four groups or characters economic development. Such assumptions are prepared on the basis that indicators of economic growth is a key indicator of economic development of the region. Meanwhile, the GDP per capita indicates the level of economic well-being of people in such areas.
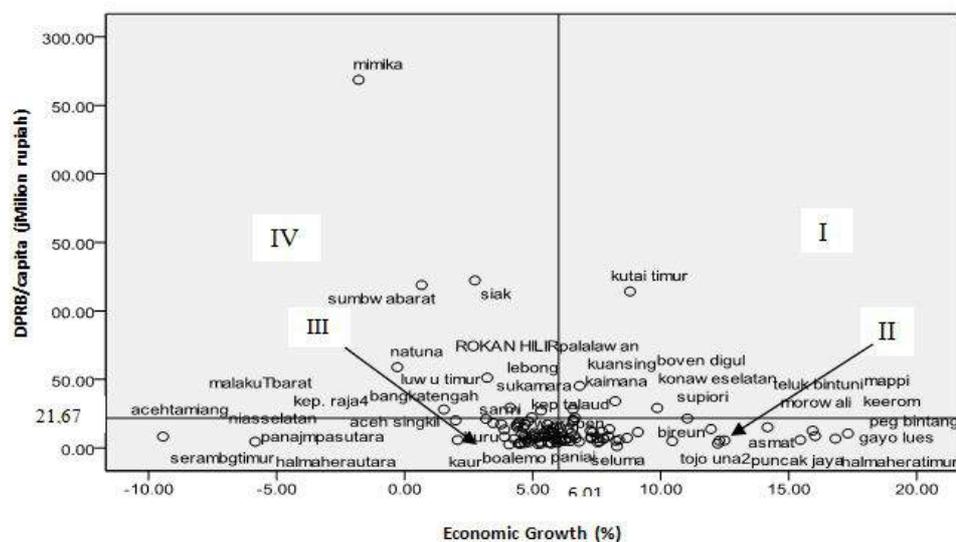
Figure 1. Matrix classes of 114 districts division based modified Klassen Typology

Based on a referral source data from BPS (2010), the rate of national economic growth reached 6.01 percent (2008) and the GDP per capita amounted to Rp. 21,666,748, - (2008) that is used as a cut-off ,. then shift quadrant, the first quadrant (the pace of the economy and the GDP per capita higher than the national, "Developed and Fast Growth areas") there are six districts of the division, namely: East Kutai Regency, Pelalawan, Digoel, Rokan Hulu, Kutai Barat, and Kuantan Singingi.

Quadrant II (economic growth rate higher than the national but the GDP per capita is lower, "Fast Growth Areas") there are 45 counties division, namely: Wondama Bay, Yakuhimo, Tolikara, South Sorong, Mountain Star, East Halmahera, Asmat, Simeulue , Bone Bolango, Mappi, Wakatobi, Keerom, Waropen, Boalemo, Puncak Jaya, Paniai, Gayo Lues, Lingga, Bintuni bay, North Mamuju, Buol, South Solok, Tebo, Banggai Islands, Malinau, Bener Meriah, Mamasa, Pohuwato, Bombana , South Konawe, Sekadau, Dharmasraya, OKU Selatan, North Luwu, Morowali, Sarolangun, Karimun, Bireuen, Tanah Bumbu, Parigi Moutong, Pasaman Barat, Serdang Bedagai, Kaimana, Sarmi, and Supiori.

Quadrant III, the economic growth rate and the GDP per capita is lower than the national ("Underdeveloped areas"), there are 54 district division, namely: East Seram District, Pak-pak West, Lembata, Aru Islands, Buru, Kaur, Sula Islands , Rote Ndao, West Seram, Halmahera Utara, Aceh Singkil, Talaud Islands, Seluma, Maluku Tenggara Barat, Aceh Jaya, South Halmahera, Melawi, West Manggarai, Raja Ampat Islands, Lamandau, Lebong, Muko-Muko, Gunung Mas, Round knives, Mentawai Islands, West Aceh, East Barito, Kepahiang, Samosir, North Kolaka, Murung Kingdom, East Belitung, South Nias, Bengkayang, Seruyan, East Lampung, Banyuasin, Humbang Hasundutan, Minahasa Selatan, Minahasa Utara, Balangan, Aceh Tamiang , Katingan, Nagan Raya, the Right Way, South Bangka, Penajam Paser Utara, Porcupine, Central Bangka, Ogan Ilir, Nunukan, Muaro, Tojo Una-una, and East OKU.

Quadrant IV is a district division that has the value of GDP per capita higher than the national level, but has the economic growth rate is lower than the national growth ("Developed and Depressed areas"), as many as nine districts, namely: Sukamara, Rokan Hilir, West Bangka, Natuna , Tanjung Jabung Timur, Luwu Timur, West Sumbawa, Mimika and Siak.

With this modified classification, the plotting the district division in quadrants can be acknowledged the distance from each district in a class or between classes. While on the Typology Klassen in general cannot be known distance from each county division. Klassen's adoption of a more flexible modification to map the district or city or province with the wider indicators.

Conclusion
Modified Klassen Typology has advantages in mapping or classifying a region with other regions based on economic indicators desired results more adequate and comprehensive.

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