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Role of Job Characteristics, Job Promotion and Disciplinary Work in Improving Employee Loyalty through Job Satisfaction in Department of Public Work in East Java Province

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Abstract

Department of Public Work (PU) in East Java Province as one of local government agencies that have a mandate to realize the management of water resources to achieve environmentally sound people's welfare, and ensure national unity and implemented equitably by relying on participation and community self-reliance. This making human resources as a major component in their duties because no matter how good the technology, if there are not good human resources, the technology will not be able to provide benefits. Therefore, to improve the quality of management attention is expected to pay attention to employee satisfaction climate creates loyalty that will work. This study aims to examine and analyze the effect of job characteristics, promotion and discipline in increasing employee loyalty through job satisfaction at the Department of Public Work in East Java Province. This study uses the independent variables are the characteristics of the job (X1), promotion (X2) and discipline (X3) and the dependent variable is job satisfaction (Y1) and employee loyalty (Y2). Model of the relationship between the variables studied the effect of job characteristics, promotion and discipline in increasing loyalty through satisfaction of employees working there. Characteristics of employment, promotion and discipline have a direct impact on employee loyalty and through job satisfaction. Based on the findings of this study can be used as a policy decision-making and increase the productivity of the employees that are specifically useful for the management of the Department of Public Work in East Java Province.

Keywords: Human Resource Management, Job Satisfaction, Employee Loyalty

INTRODUCTION

Human resource management is an activity that needs and has an ideal role within an organization. Its main focus is the people or employees. Without them there would be no requirements in the management of other resources. Because human resources activities involving people as an employee, then the employee is one of the most dominant element in the strategic and business goals. Thus, in an organization of these activities need to be planned and managed effectively and efficiently in order to achieve the objectives and results as desired. Employees is an important factor for the organization, in addition to other factors such as production material, capital, market, or the use of new technology machines. This is because man is a planner, actors and determinants of the realization of the needs and objectives of the company. Thus organizations need employees who are skilled, proficient, morale and dedicated high in completing the work in accordance with the business organization.

Department of Public Work (PU) in East Java Province is one of the government agencies engaged in community empowerment. Organization Department of Public Work in East Java Province Regional Regulation No. 9 of 2008 (Article 1) on the Organization and Work Procedure of the Regional Office of East Java Province, which is a follow up in implementation of Government Regulation No. 41 of 2007 concerning the regional Organization , In order to achieve and carry out the duties and responsibilities of the organization as a government regulation in question, the necessary human resources are skilled and competent in their respective fields.

Human resource management (HRM) is not something new in the environment of an organization, improving the quality of human resources and limited there will continue to be a serious concern and refined to achieve things that idealized an organization or a company. Each company expects all employees can work well and have high morale, so what is the company's overall goals will be more easily achieved. Activities of the organization will be easily fulfilled if an employee has a high employment loyalty. With the loyalty of high employment, the employee will be more easily motivated to work well while creating job satisfaction for employees.

One way to improve the management of employee job satisfaction or employee is to put the work in accordance with the characteristics of the personal characteristics of employees. This is similar to what is said by Gunastri (2009: 14) is as follows: "the nature and tasks that include responsibility, kinds of tasks and the level of satisfaction derived from the work itself. Works that are intrinsically rewarding to be more motivating for most people and the unsatisfactory work ". With optimal job satisfaction an employee or an employee will always be free and happy in performing their duties and responsibilities assigned.

Thus one way to increase job satisfaction is to consider the characteristics of the work and responsibility. Working in an organization to earn rewards based on the belief that by working in an organization that someone will be able to satisfy all their needs. (Siagian, 2000). This is supported by research Jatmiko (2011) and Nice, concluded that the job characteristics and significant positive effect on job satisfaction.

Department of Public Work (PU) in East Java Province has a vision Realization of water resource management to achieve environmental welfare of the people, and to ensure national unity and implemented equitably by relying on participation and community self-reliance. To realize this vision for official agencies required the efforts of how to place workers with the field and the characteristics of each employee, because if someone will be able to enjoy them when they work in accordance with what is fun. With pleasure will cause satisfaction and loyalty at work. Loyal employees will continue working on their tasks and responsibilities well, because without coercion and will bring creative ideas.

But the suitability of job characteristics is still cause dissatisfaction on several employees, since not all employees are in accordance with the work that they do. It fosters demotivating for some employees which then led to the reduction in employee satisfaction. One of the things related to employee job satisfaction is a promotion that will eventually culminate in compensation grade.

Opportunities for promotion or career development is employee motivation is also needed by the employee. According Rival and Sagala (2009) career development is the process of improving the ability of individual work achieved in order to achieve the desired career. It can

be concluded that career development is a continuous process through which individuals through personal efforts in order to realize the goal of career planning adapted to the conditions of the organization. According to Wahyudi (2002), career training necessary to understand the two processes, namely how people plan and implement their own career goals (career planing) and how institutions to design and implement a career development program (career management). Dessler (1997) argues that individual's career as a clerk will give you the advantage that satisfaction, personal development and life promotion to a position or a higher position, but an encouragement or motivation to move forward and develop the work.

Research Tambunan (2012), Minarsih (2007) and Nice (2011) which states that the variable promotions and significant positive effect on job satisfaction. Likewise with research Mariami (2013) which states that the variables that most influence on employee job satisfaction is variable career development in this regard is promotion.

Attitude towards work is an important aspect of every human aspiration. Factor this work can be an indicator of the accuracy of the aspirations of the attitude of the personnel of an organization as the impact of various policy approaches organizers. Attitude including an employee feelings and aspirations of the various dimensions of the work is often termed the "Job Satisfaction"

Human resources have an important role to make this happen. Hasibuan (2000) argues that human beings have always played an active role in every activity of the organization is as planners, actors and determinants of the realization of objectives of the organization, thus making man an asset that should be improved efficiency and productivity. On the other hand, the employee is not productive means employees do not have the morale high, not as resilient in the work and morale is low, the organization will not be able to run well.

Companies may believe that income, wages or salary are the main factors that influence employee satisfaction, so when the company was already providing sufficient salary, he felt that the employees were satisfied. Actually, employee satisfaction is not absolutely influenced by salary alone. Many factors affect the job satisfaction of employees, including the suitability of work, organizational policies including opportunities to develop, the working environment and the behavior of superiors.

New employees typically have a higher level of satisfaction than the old employee. This is because the new employees get more attention from the leadership. More attention is because as a new employee, of course management will explain their responsibilities and duties. Thus established communication between supervisors and subordinates. This makes them feel cared for and eager to work. Even the few new employees who get some training to support its work in the early tenure. Meanwhile, long-time employee who has worked within a certain time, will feel the saturation. Moreover, if during their work has not been moved to another section / has not been promoted. They wanted a change and a new challenge in his job. This challenge covers both in terms of amount of responsibility or perhaps the type of work. When companies do not give them a chance to develop, it will make them lazy to work and productivity drops.

The task for the management to employee morale and high moral standing and tenacious work. Usually employees are satisfied with what they get from the company will give more than what is expected and it will continue to strive to improve their performance, otherwise employee work satisfaction lower tend to see work as being dull and boring, so he works with

forced and perfunctory, For it is imperative for organizations to identify any factors that make employees satisfied with the company / institution.

Factors affecting job satisfaction of employees, including the award / reward, a chance to grow / promotion, supportive work environment, salary and behavior of your boss / supervisor. According to Robbins (2002) in Cholil and Riani (2003) job satisfaction is employee attitudes toward work. Robbin also reminded to each maintainer organization to really look at the importance of understanding and fulfillment of work that has an impact on the productivity levels of absenteeism and labor turnover.

Department of Public Work (PU) in East Java Province has a system of career development (promotion) is certain, which is expected to make employees motivated to do career planning. However, not all employees of the Department of Public Work (PU) in East Java Province, motivated by career development system is because in order to achieve higher career, it takes the results of performance evaluation by superiors. Concerns emerged that the boss was not impartial in its assessment that enabled employees who excel compete with lower- performing employees. In fact, if an employee who excel can have a better career, it will lead to another employee job satisfaction and job loyalty was reached.

To get the job satisfaction among the factors that become the benchmark of the employee or the employee is the placement office. To get a good performance effort and maximum work. Work performance and maximum results can be reached with high discipline anyway. In this study, the authors decided to conduct a study of the organization or government agency that uses a lot of labor. Therefore, employees in this case is an important key in the process of development of the company is required to improve its performance.

The attitude and behavior of employees in the workplace is a major factor affecting the performance and growth of any organization in establishing cooperative relations of the company, especially in the less effective employees, and enforce discipline.

So it is necessary to improve work discipline and motivation to employees. In addition to matters relating to work discipline and motivation are the problems that must be seen further is a matter of ability (skill) the employees themselves, although there are stringent rules that created the organization or company to enforce in the discipline of work and a good motivation from superiors , but it needs the support of the employees, the performance of the organization in general and the goals of the organization in charge of companies or organizations will be achieved to the fullest.

LITERATURE REVIEW

Human Resource Management

Definition of management and human resources can be said that human resource management is a management science applied in human resource management issues. The writer saw a lot of definitions of human resource management, no one else is universal definition that can be accepted by all parties. Nonetheless, the author tries to present definitions of some experts who then drawn a conclusion of their opinions.

Dessler (2004: 2), define the human resource management "process acquire, train, assess, and provide compensation to employees, pay attention to their labor relations, health and safety, as well as a matter of justice".

According to Flippo quoted Handoko (2011: 3), "Human resources management is the planning, organizing, directing and monitoring the activities of procurement, development, remuneration, integration, maintenance and disposal of human resources in order to achieve various goals of individuals, organizations and society ".

According Mangkunagara (2005: 2), namely: "HR Management is a planning, organizing, coordinating, implementing, and monitoring of procurement, development, provision of remuneration, integration, maintenance, and the division of labor in order to achieve the company's goals".

Based on these definitions can be interpreted that the human resource management can be defined as a process of planning, organizing, directing, monitoring than the procurement, development, compensation administration, integration, maintenance, and termination of employment with the intent to assist managers in achieving corporate goals. In accordance with the understanding of human resource management that has been formulated above, the activities of human resource management in an organization can be classified into several functions. As an applied science of management science, management of human resources management functions with application in the field of human resources. Wahyudi (2002: 12) mentions that the basic functions of the science of management with the implementation of the organization's human resources are as follows:

a) The planning function, which perform tasks in the procurement requirements planning, development, and maintenance of human resources.
b) Organizing function, which is preparing an organization by designing the structure and relationships between tasks that must be done by manpower prepared.
c) Executive functioning, which gives a boost willingness remedy creates work is carried out effectively and efficiently.
d) Control functions, which make measurements between the activities carried out by the standards that have been set, particularly in the field of labor.

Besides the basic functions, human resource management has several operational functions. Where essentially the operational functions of human resource management can be classified into three operational functions as revealed by Wahyudi (2002: 14), that the procurement, development and maintenance of Human Resources.

Operational functions of human resource management within the scope of the procurement of human resources and the development of human resources are directed to ensure the basic requirements of work ability. While the operational functions of human resource management within the scope of the maintenance of human resources are directed to ensure the basic requirements of work ability.

Work Loyalty

In carrying out the activities of employees will not be separated from the loyalty and work ethic, so that the employee will always perform their jobs well. Employees feel a profound pleasure to work being done

Hasibuan (2001), suggests that labor loyalty or allegiance is one element that is used in the assessment of employees that includes loyalty to his job, his position and the organization. This loyalty is reflected by the willingness of employees to maintain and defend the organization inside and outside the work of undermining the irresponsible people.

The loyalty of the employees in an organization that is absolutely necessary for the sake of organization itself. According to Reichheld, the higher the loyalty of the employees in an organization, the easier it is for the organization to achieve organizational objectives predetermined by the owner organization (Utomo, 2002: 9). As for the opposite, for organizations lower the loyalty of its employees, it is increasingly difficult for the organization to achieve the goals of the organization that has been previously set by the owners of the organization. Loyalty work would be created if employees feel fulfilled in meeting the needs of the job, so that they feel at home working in a company. Yuliandri (in Kadarwati, 2003) confirms that the factors affecting employee loyalty is their working facilities, a review of welfare, working conditions and wages received from the company.

Furthermore, Steers and Porter (in Kusumo, 2006) states that the incidence of workplace loyalty is influenced by four factors, namely:

a) Personal characteristics, including age, years of service, gender, level of education, achievements of, races and several personality traits.
b) Job characteristics, such as the challenges of work, job stress, social interaction opportunities, job enrichment, identification of tasks, task feedback and matches task.
c) Characteristic design company, concerning the company's internal it can be seen from decentralization, formalization level, the level of participation in decision-making, at least have shown varying degrees of association with corporate responsibility, functional dependency and control functions of the company.
d) Experience gained in the work, including a positive attitude toward the company, confidence in a positive attitude toward the company, a sense of security.

Based on the factors that have been disclosed above can be seen that each of these factors have their own impact the viability of the company, so that the demands of loyalty expected by the company can only be fulfilled if the employee has the characteristics as expected and the company itself has been able to meet expectations employees, so it can be concluded that the factors that influence loyalty include: the facilities work, welfare benefits, working atmosphere wages received, personal characteristics of the individual or employee, job characteristics, the characteristics of the design company and the experience gained during the employee to pursue the job.

JOB SATISFACTION

In organizational life, job satisfaction is usually used as the basic measure of the degree of maturity of the organization. One of the symptoms that result in poor working conditions of an organization is the low job satisfaction, high job satisfaction otherwise is an indication of managerial effectiveness, which means that the organization has been managed well.

Job satisfaction according to Robbins (2001: 147) is defined as a person's general attitude towards work, the difference between the amount of reward received by workers and the number that they believe should be accepted. Because a belief in the self-satisfied workers are more productive (achievement) when compared with unsatisfied. This means that workers who are satisfied will demonstrate higher performance.

Job satisfaction according to Mathis and Jackson (2002: 98) is a positive emotional state of a person's work experience evaluated. Job dissatisfaction arise when these expectations are not met. Job satisfaction comprises many dimensions. In general, the observed phase is job satisfaction in the work itself, salary, recognition, relationships between supervisors with

labor, and the opportunity to move forward. Job satisfaction is a measure of sustainable human development process in an organization. Therefore, no one manager can expect to be able to make all employees are happy in their work, job satisfaction should still get attention. With satisfying the various wants, wishes and needs of the employees will be able to determine their attitudes and behaviors in the work. From the above it can be concluded that satisfaction is an emotional state that is pleasant or unpleasant is felt by an employee of looking at their work.

JOB SATISFACTION MEASUREMENT INDICATORS

Job satisfaction is a research or reflection and feelings of workers to work. This is evident in the positive attitude of workers to the job at hand and the environment. Conversely, a disgruntled employee will act negatively toward work and form different from one another. Employee dissatisfaction should be detected by the company. According Muchinsky (1997: 424), the variables that can be used as an indication of declining job satisfaction is absenteeism, turnover, and job performance.

As'ad (2004: 103) explains that the variables that can be used as an indication of declining job satisfaction is the high rate of absenteeism (absenteeism), high employee turnover (turnover), decreasing. Labor productivity or employee performance (performance). If the indication of the decline in employee satisfaction rise to the surface, it should be addressed so as not to hurt the company.

To know the indicators that influence job satisfaction, according Luthans (2005) and consists of five indicators, namely:

1. Compensation or payment.
   Compensation such as salaries and wages, incentive allowances, and facilities received by employees. Employees want a system of wages and compensation policies that are perceived as fair, no doubt, and in line with his hopes. When wages are seen as fair based on the demands of work, the level of individual skills and community wage standards are likely to be generated satisfaction.
2. The job itself.
   Employees tend to prefer jobs that provide opportunities to use abilities and skills, according to the education, and has full authority. These characteristics make the work more challenging. Less demanding jobs create boredom, but too much challenge can also create frustration and a feeling of failure.
3. Co-workers.
   For most employees work also fills the need for social interaction. Therefore, having co-workers were friendly and support ushered into increased job satisfaction. Besides co-workers who can be invited to work equal, communicate well, and encourage each other can also increase job satisfaction.
4. Promotion of work.
   Sale occurs when an employee moves and a job to another position higher salaries, responsibilities and organizational levels. At the time of promoted employees generally face increased demands and expertise, capabilities and responsibilities. Most employees feel positive because it promoted. Sale allows the company to leverage the capabilities and skills of employees as high as possible. Effective promotion system allows an organization to match sustainable demand be a competent workforce with employees' desire to apply the skills that have been mastered.
5. Supervision / control.
   Supervision has an important role in management. Supervision of employees directly related to and affected employees in doing his job. Employees generally prefer to have

the supervision of a fair, open and willing to cooperate with subordinates. Supervision also choose the right person for a job, create interest each person to work and teach how to do its job, measure and assess the results of its work, holding corrections when necessary and move people to work more suitable or dismiss them which turned out to not be able to work better, give praise and appreciation for good work, and eventually align everyone to working atmosphere equal closely with other friends co-workers, all of it is done in a fair, patient, and tolerance so that everyone do his job with proficient, conscientious, intelligent, passionate, and perfect.

HYPOTHESIS

Based on the background, and a literature review of previous studies that showed that it requires a theory of the characteristics of employment, promotion, work discipline, job satisfaction, and employee loyalty. These theories need to be studied because it will help the process of analysis. In the process of analysis involves thinking associated with a theory that can be expressed with the universal theory required for all specific cases and special, therefore the process of thinking embodied in a theoretical study contains the thought process of deductive means the researchers will analyze and answer the problems and draw conclusions by or starts from the things that are common toward the things that are special. So that in a study, the researchers do not think any deductive or inductive thinking, but the interaction back and forth from deductive reasoning process (theoretical studies) and inductive thinking process (empirical studies). At the time of such a process is found both variables in studies with a theoretical as well as empirical studies and causality relations on the basis of the hypothesis of the study was composed.

Based on an explanation and background of the above, then drafted a conceptual framework of the research presented Figure 1.

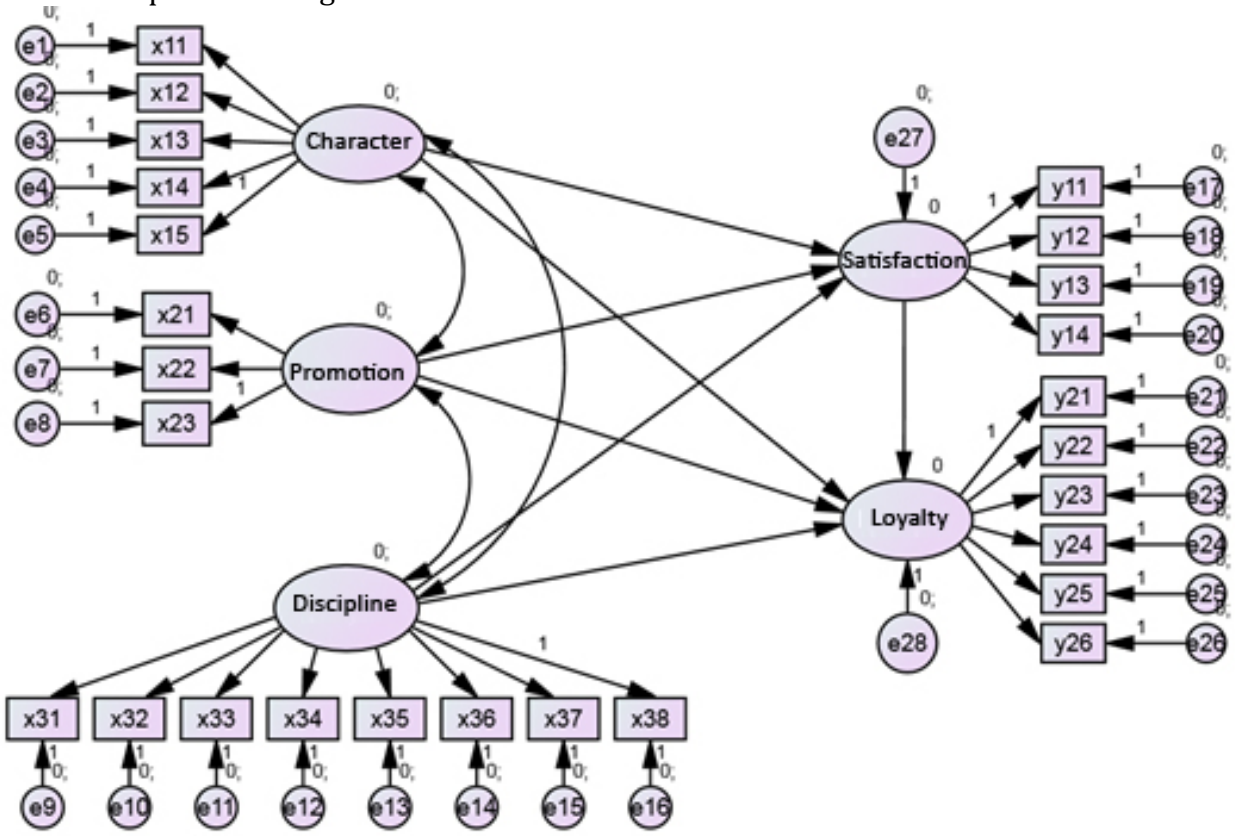

Figure 1. Conceptual Framework Research

The hypothesis is provisional estimates of a problem that must be substantiated. Based on the background, problem formulation, research objectives and review of the literature that has been stated previously, then that becomes the hypothesis in this study are:

1. Job characteristics significantly influence job satisfaction of employees at the Department of Public Works Irrigation East Java Province.
2. Promotions significant effect on job satisfaction of employees at the Department of Public Works Irrigation East Java Province.
3. Discipline significant effect on job satisfaction of employees at the Department of Public Works Irrigation East Java Province.
4. Job characteristics significantly influence employee loyalty at the Department of Public Works Irrigation East Java Province.
5. Promotions significant effect on the loyalty of employees at the Department of Public Works Irrigation East Java Province.
6. Discipline significant effect on the loyalty of employees at the Department of Public Works Irrigation East Java Province.
7. employee satisfaction significantly influence employee loyalty at the Department of Public Works Irrigation East Java Province

RESEARCH METHOD

Types of Research

According Sugiyono (2013), the study called conclusive research because it aims to test hypotheses about the relationship between the variables studied, where the necessary information is clearly defined, the research process of formal and structured, using a relatively large sample and representative, and data analysis using techniques qualitative.

Based on the opinion and Efendy Singarimbun (2000), this study also called survey is a study conducted by taking a sample of the population and the questionnaire as a data collection tool staple. Survey research can also mean a study could be done on a small or large populations, but the data studied are data from a sample taken from the population, so that the relative incidence was found, the relationship between variables is socialist or psychological.

Population of Research

Population is a generalization region consisting of objects or subjects that have quality and characteristics defined in the study to learn and then drawn conclusions (Sugiyono, 2013). The study population was staff and employees and employees other than the production of the Public Works Department in East Java Province which numbered 170 employees.

Samples of Research

The sample is part of the population that has the same characteristics as the population. The sampling technique in this study using probability sampling technique, which is a sampling technique that provides equal opportunity for each element (member) of the population to be selected as members of the sample. This probability sampling technique was different is simple random sampling, proportionate stratified random sampling, disproportionate stratified random sampling area (cluster) sampling (Sugiyono, 2010: 120). The sample is representative of the majority or the population to be studied (Suharsimi Arikunto, 2010: 109). Of the study population as many as 170 employees in the Public Works Department of Irrigation of East Java Province, then respondents drawn in this study is the number of 175 respondents, so in this study using population studies or studies census, as submitted by Suharsimi Arikunto (2010: 173) "if someone wants to examine all the elements that exist in the area of research,

the research was population research, study or research is also called the study or the study population census".

Variable Classification

The variables that will be examined in this study and classified into two general categories:

Independent variables or exogenous variables is the variable whose value affects the value of other variables, given the symbol X is:

1. Job Characteristics (X1)
2. Promotion of Position (X2)
3. Discipline (X3)

The dependent variable or variables endogenous, ie variable whose value depends on the value of other variables, given the symbol Y in this study are:

1. Job Satisfaction (Y1)
2. Employee Loyalty (Y2)

Measurements for each variable research is conducted in the form of scoring according to Likert scale. Likert scale is a psychometric scale commonly used in the questionnaire, and is the most widely used scale in the form of survey research. The name is taken from the scale of Likert Rensis name, which published a report describing its use. Likert scale (Likert Scale) is a method that measures attitudes to agree or all disagree the subject, object, or certain events, described in the statements contained in the questionnaire. Likert Scale in this study using a 5 point rating where the number 1 indicates the lowest value and the numerical value 5 indicates the highest value.

Questionnaire design built to allow investigators in describing the variables and indicators in the form of items, which will be used as the material preparation of the questionnaire, shown in Table 1.

TABEL 1: Questionnaires Design

Theoretical Concept	Variable	Indicator	Item
Job Satisfaction	Job Satisfaction (Y1)	**1. Employment challenging** **2. Salary fair** **3. Working conditions that favor** **4. Support from colleagues**	Y1.1 Y1.2 Y1.3 Y1.4
Work Loyalty	Works Employee Loyalty	1. Obey the rules 2. Responsibility of Companies 3. Willingness to cooperate 4. Sense of belonging 5. Relations between people 6. Passions to work	Y2.1 Y2.2 Y2.3 Y2.4 Y2.5 Y2.6
Job Characteristic	Job Characteristic	1. Autonomy 2. Variation jobs 3. Identity Task 4. Significance task 5. Feedback	X1.1 X1.2 X1.3 X1.4 X1.5

Theoretical Concept	Variable	Indicator	Item
Job Promotion	Job Promotion	1. Experience (seniority) 2. Skills (skills) 3. The combination of experience and skills	X2.1 X2.2 X2.3
Discipline	Discipline (X2)	1. Purpose and Capabilities 2. Exemplary Leadership 3. Reply Services 4. Justice 5. Waskat 6. Penalties Penalties 7. Assertiveness 8. Relations humanity	X3.1 X3.2 X3.3 X3.4 X3.5 X3.6 X3.7 X3.8

Source: Researcher (2015)

LIMITATIONS AND RESEARCH ASSUMPTIONS

The study was limited to the study of the characteristics of employment, promotion, discipline, job satisfaction, and employee loyalty, by taking the research object Public Works Department employee Irrigation East Java Province. This research is aimed to test the hypothesis to explain the relationship or influence the characteristics of employment, promotion and discipline on job satisfaction and employee loyalty Public Works Department of Irrigation of East Java Province. The assumption of this study is the independent variable other than the characteristics of employment, promotion and discipline carry no (small) on the satisfaction and loyalty of employees.

Data used in this study was twofold primary data and secondary data.

1. Primary data is data collected directly from the research is the answer of the respondents on matters relating to the characteristics of the work, discipline, job satisfaction, and employee loyalty Public Works Department of Irrigation of East Java Province.
2. Secondary data is data obtained from the company (Public Works Department of Irrigation East Java Province), which became the object of research related to the records and operations of the company.

Data collection procedures were performed with the following steps:

1. The initial survey, conducted as an initial observation of the condition of the company that became the object of study and explore issues that exist in order to obtain data related to research and as a basis for the preparation of the questionnaire.
2. The interview, conducted by conducting interviews to speakers from organizations or companies concerned as well as explore the necessary information in the study.
3. Distribution of the questionnaire, was conducted to obtain data on respondents' ratings of job characteristics variables, promotion and discipline, job satisfaction, and employee loyalty Public Works Department of Irrigation of East Java Province.

DATA ANALYSIS TECHNIQUE

Inferential statistical analysis focuses on the field of study analysis and interpretation of data to draw conclusions. This analysis is used to test the hypothesis of the research that has been set by using sample data obtained. Statitik inferential methods used in the analysis of this research is Structural Equation Modeling (SEM). Reasons for using SEM, the consideration that the causal relationship is defined in this study using a simple model that does not play double roles as employee satisfaction. Forms causal relationship like this requires analysis that is able to explain simultaneously on the relationship so the methods used in this study using SEM.

The use of SEM as a tool of analysis based on the grounds complexity model used, the limitations of multidimensional analysis tools that are often used in quantitative research, such as multiple regression, factor analysis, descriminant analysis and others. The weakness of this analysis tool can only analyze one relationship at a time. In the language of the study stated that the analysis techniques can only test one dependent variable through several independent variables. In fact, the company faced a situation where there is more than one dependent variable that must be linked to an unknown degree interrelasinya (Ferdinand, 2002: 26). SEM as an extension or a combination of multivariate techniques.

Structural Equation Modeling (SEM) is a statistical tool used to resolve simultaneous multilevel models that can not be solved by the linear regression equation. SEM can also be considered as a combination of regression and factor analysis. SEM can be used to solve the model equations with more than one dependent variable and the reciprocal influences (recursive). SEM based on the analysis of the matrix covariance thus providing more accurate than the linear regression analysis. Statistics programs that can be used to complete the example SEM Analysis of Moment Structure (AMOS) or LISREL.

The data obtained and used as a sample of respondents who study through questionnaires distributed, will be analyzed using Structural Equation Modeling (SEM) by AMOS 22 and 22. SPSS AMOS program shows the measurements of the structural problems, and are used to test the hypothesized model. This is due to their ability to estimate the unknown coefficients of the linear equation structural model that accommodates the latent variables, measurement error accommodate the dependent and independent variables, warning accommodate simultaneous reciprocity and interdependence.

Structural Equation Modeling has the main characteristics that distinguish it from other multivariate analysis techniques. In SEM estimates are double dependency relationship (multiple dependence relationship). SEM also allowed to represent concepts that previously were not observed (unobserved concept) in an existing relationship and taking into account the measurement error.

Validity Data Test

Validity test used to determine whether the indicators as a measure of the concept can measure that should be measured, according to Anderson & Girbing and Ferdinand (2000: 187) states that each indicator has a Critical Ratio is two times larger than the standard error, the indicator is valid measure what should be measured. In the model presented Critical Ratio values (which is identical to the t the regression) can be obtained via the AMOS program (Analysis of Moment Structure).

Reliability Data Test

Reliability test is used to determine the extent of the contribution of indicators as a constituent of the concept or construct, reliability is calculated via the instrument used reliability index of SEM models analyzed by the formula:

$$Construct \quad \text{Re}liability = \frac{(\Sigma S\tan dard \quad Loading)^2}{(\Sigma S\tan dard \quad Loading)^2 + \Sigma \varepsilon j}$$

Standard Loading obtained directly from the standardized loading for each indicator (taken from computer calculations AMOS), the lambda value obtained from each indicator. εj is the

measurement error of each indicator. Measurement indicator is equal to 1-reliability indicators of rank two of the standardized loading every indicator analyzed. The limit values are used to assess an acceptable level of reliability is 0.70, although the size is not the number of "dead" means that if the research is explanatory, the value below 0.70 is still acceptable as long as accompanied by the reasons empirical look in the process explanatory.

Ferdinand (2000: 311) provides a good guideline for interpreting reliability index. Then states that the explanatory research, the reliability of which were between 0.5 to 0.6 is enough to justify a study. Thus the analysis of the data that is being used in this study provides results that can be interpreted as quite reliable.

RESULT AND DISCUSSION

Effect of Variable Delivery Research

Structural equation with many variables and paths between variables there are significant among variables that include direct effect, indirect effect, and total effect. For it is discussed as follows:

Direct Influence between Research Variables

Direct relationships occur between the exogenous variables (characteristics of the job, a promotion and discipline) with the endogenous variables (job satisfaction) as intervening variables and endogenous variables (employment loyalty). This relationship through a study, to see whether there is a direct relationship between these variables. The result of a direct link is a direct connection that occurs between exogenous and endogenous variables. In detail or detail through studies in this study, the direct connection (direct), it has been described in Table 2 below:

Tabel 2: Direct Influence between Research Variable

DIRECT INFLUENCE		endogenous variables	
		Job Satisfaction	Job Loyalty
Exogenous Variables	Job Characteristic	0,250	0,216
	Job Promotion	0,317	0,180
	Job Discipline	0,125	0,137
	Job Satisfaction	0,000	0,439

Source: Researcher (2015)

From table 2, can be explained much influence directly of exogenous variables on endogenous variables. Promotions provides most direct effect on job satisfaction compared to both other variables. Furthermore, job satisfaction provides the greatest effect on employee loyalty.

Indirect Influence between Research Variables

Indirect relationships occur between the exogenous variables (characteristics of the job, a promotion and discipline) with the endogenous variables (job satisfaction) as intervening variables and endogenous variables (employment loyalty). This is indirectly there is a relationship between these variables.

The results of indirect relationships (indirect) is an indirect relationship that occurs between variables - exogenous and endogenous. In detail through the studies in this study, the correlation is not direct (indirect) between these variables and are described in Table 3 below.

Based on Table 3 above, may explain the magnitude of the indirect effect (indirect effect) exogenous variables on endogenous variables. Promotion gives biggest indirect effect on

employee loyalty variables and variables in second place is the variable characteristics of labor work.

Table 3: Indirect Influence between Research Variables

INDIRECT INFLUENCE		endogenous variables	
		Job Satisfaction	Job Loyalty
Exogenous Variables	Job Characteristic	0,000	0,110
	Job Promotion	0,000	0,139
	Job Discipline	0,000	0,055
	Job Satisfaction	0,000	0,000

Source: Researcher (2015)

Total Inter Variables Influence

The total influence is the sum effect directly and indirectly between the exogenous variables (characteristics of the job, a promotion and discipline) with the endogenous variables (job satisfaction) as intervening variables and endogenous variables (employment loyalty). This relationship through a study, to see whether directly or indirectly on the relationship between these variables. The results of the relationship directly and indirectly that occurred between variables - exogenous and endogenous variables in this study, it will be explained in detail in Table 4 below:

Table 4: Total Inter Variables Influence

Total Influence		endogenous variables	
		Job Satisfaction	Job Satisfaction
Exogenous Variables	Job Characteristic	0,250	0,325
	Job Promotion	0,317	0,319
	Job Discipline	0,125	0,137
	Job Satisfaction	0,000	0,439

Source: Researcher (2015)

Based on Table 4 above, the magnitude of the total effect of exogenous variables on endogenous, ie job characteristics have the greatest influence on employment loyalty and promotions have the most impact on job satisfaction. Job satisfaction is a significant impact on employment loyalty variable.

DISCUSSION

Characteristics of the work (X1) which is implemented by the Public Works Department in East Java Province has a positive and significant impact on job satisfaction (Y1). This means that the characteristics of the work in this respect autonomy, variety of work, task identity, task significance and feedback is applied by the Public Works Department in East Java Province in accordance with the wishes and expectations of employees of the Public Works Department of Irrigation of East Java Province. The level of job characteristics largely determine the suitability of employee satisfaction. The results of the research fully supports the results of research conducted by Jatmiko (2011) and Nice (2011) which says that the job characteristics and significant positive effect on job satisfaction. The results of this study also supports the theory put forward by Ni Made Gunastri (2009: 14) who said that "the nature and tasks that include responsibility, kinds of tasks and the level of satisfaction derived from the work itself. Works that are intrinsically rewarding to be more motivating for most people and the unsatisfactory work ".

Promotion (X2) implemented by the Public Works Department in East Java Province has a positive and significant impact on job satisfaction (Y1). This means the promotion in this case the experience (seniority), skills (skills) and the combination of experience and skills that are applied by the Public Works Department in East Java Province in accordance with the wishes and expectations of employees of the Public Works Department of Irrigation of East Java Province. Application of proper promotion system is one factor that can increase job satisfaction. The results of the study support the results of research conducted by Tambunan (2012), Minarsi (2007), Good (2011), Mariami (2013) and Nurjanati (2012) concluded that either simultaneously or partially promotions significant effect on employee job satisfaction. Then also supports the theory that says Hasibuan (2005: 113) says that "one of the objectives DARPI promotion is to give rise to satisfaction and personal pride, the higher the social status and income are increasingly BESA. Another implication is the management should encourage employees who are at the lowest level to make their own decisions and employees to believe in their job without having monitored every move she behaved. This is the principle of empowerment (empowerment) Employees ". From these statements it can be concluded that the direct implementation of the promotion is closely related to employee satisfaction and loyalty.

Discipline (X3) implemented by the Public Works Department in East Java Province has a positive and significant impact on job satisfaction (Y1). This means discipline in this case the purpose and capabilities, exemplary leadership, remuneration, fairness, penal sanctions, rigor and human relations that are applied by the Public Works Department in East Java Province in accordance with the wishes and expectations of employees of the Public Works Department in East Java Province, Discipline employees maximum will increase employee job satisfaction. The results of the study support the results of research conducted by Rohimah (2013) who said that disciplinary significant effect on satisfaction and discipline is the dominant variable affecting job satisfaction.

Characteristics of the work (X1) which is implemented by the Public Works Department in East Java Province has a positive and significant effect on loyalty work (Y2). This means that the characteristics of the work in this respect autonomy, variety of work, task identity, task significance and feedback is applied by the Public Works Department in East Java province in accordance with the wishes and expectations of employees of the Public Works Department in East Java Province. The level of job characteristics largely determine the suitability of employee loyalty. The results of the research fully supports the results of research conducted by Nugroho (2008) in his research to get the result that there is a significant direct effect between the characteristic of the work of the employee loyalty. The results of this study also supports the theory put forward by Steers and Porter (in Kusumo, 2006) states that the incidence of workplace loyalty is influenced by four factors: personal characteristics, job characteristics, the design characteristics of the company and the experience gained on the job.

Promotion (X2) implemented by the Public Works Department in East Java Province has a positive and significant effect on loyalty work (Y2). This means the promotion in this case the experience (seniority), skills (skills) and the combination of experience and skills that are applied by the Public Works Department in East Java Province in accordance with the wishes and expectations of employees of the Public Works Department of Irrigation of East Java Province. Application of proper promotion system is one factor that can increase the loyalty of work. The results support the results of research conducted by Mariami (2013) conclude that the study showed that motivation and career development indirect effect on loyalty employment through job satisfaction. It can be interpreted that the loyalty of employees will be increased significantly if the promotion is supported by employees' job satisfaction. The results

of the present study also supports the theory put forward by Hasibuan (2005) said that "one of the factors that affect promotion is employee loyalty". From these statements it can be concluded that the direct implementation of the promotion is closely related to employee satisfaction and loyalty.

Discipline (X3) implemented by the Public Works Department in East Java Province has a positive and significant effect on loyalty work (Y2). This means discipline in this case the purpose and capabilities, exemplary leadership, remuneration, fairness, penal sanctions, rigor and human relations that are applied by the Public Works Department in East Java Province in accordance with the wishes and expectations of employees of the Public Works Department Irrigation East Java Province , Discipline employees maximum will increase employee loyalty. The results support the research conducted by Rohimah (2013) which states that there is a positive and significant influence between the variables of discipline against the employee loyalty.

Job satisfaction (Y1) are perceived by employees of the Public Works Department in East Java Province has a positive and significant effect on loyalty work (Y2). This means that job satisfaction in this challenging work, fair wages, working conditions that support and support from co-workers perceived employee influence employee loyalty Public Works Department of Irrigation of East Java Province. The results of this study support research done by Mariami (2013) that job satisfaction is positive and significant effect on employee loyalty. Theory advanced by Robbins (2002), which suggests that job satisfaction can be defined as a general attitude toward one's work, the difference between the amount of reward received by workers and the number that they believe should be accepted. Because a belief in the self-satisfied workers are more productive when compared with unsatisfied.

The results of this study indicate the direct and indirect influence of the variable characteristics of employment, promotion and working environments on job satisfaction and employee loyalty. Establishment of an intervening variable of job satisfaction in the analysis of the relationship between the characteristics of employment, promotion and working environment of the employees' loyalty. The third variable is the variable characteristic of latent employment, promotion and discipline directly affects employee loyalty or through any intervening through endogenous variable of job satisfaction.

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Measuring the Impact of Human Resource Management Practices on Organizational Performance with the Mediating Role of Supply Chain Performance between Them in Saudi Industrial Large Organizations

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Abstract

The main objective of this study is to measure the impact of human resource management practices on organizational performance of the Saudi industrial organizations, with analysing the mediating role of supply chain performance in the relationship between human resource management practices and organizational performance. Study population included all Saudi organizations registered in Commerce Industrial Chamber in the Eastern Province. Two hundred seventy-four (274) questionnaires were distributed. The number of correct questionnaires was 218, representing 79.6% of the total number of distributed questionnaires. The study results confirmed the existence of a significant positive impact of human resources management practices on the efficiency of supply chain performance and organizational performance. The results of this study revealed that the HR practices affect the efficiency and effectiveness of supply chain performance, and then the organizational performance. The results also confirmed that the supply chain performance plays the mediating role in that relationship. Therefore, it is essential that Saudi organizations try to exert endeavors to implement exclusive ranges of human resource management practices to assist them in achieving an excellent level of organizational performance.

Key Words: Organizational performance, supply chain performance, human resources management practices, and Saudi Industrial Large Organizations.

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INTRODUCTION

The increasing attention toward HRM led to build a base of empirical researches that provided moral connotations in their studies of the impact of different HRM practices on corporate performance and organizational performance. However, researchers did not draw enough attention to understand the mechanisms by which HRM practices affect the organizations performance. In spite of the fact that this type of researches play a key role in emphasizing the importance of HR, but there are a few researches which have been conducted in this area. Through reviewing the literatures that have tested theoretical construction of HRM practices, we discover that the approach adopted by the researchers are the descriptive approach limited to the link between HRM practices and the organization performance or organizational performance. However, some researchers have concluded the results that confirm the existence of a significant relationship between the HRM practices and some significant variables that help to increase the organizational performance level and contribute in achieving an excellent level of organizational performance.

LITERATURE

Human Resource Management Practices

HRM is viewed as an integrated strategy and planned development process for the effective use of HR to achieve organizational goals. HRM involves the development of individual's capabilities and trends in a similar manner to achieve personal growth and the contribution to achieve organizational interests. Noe et al., (2006) defined HRM as it refers to the policies, practices, and systems that affect the behavior, attitudes, and performance of staff. However, the important thing is to determine the limits of HRM practices. Hornsby and Kur atko (2003) identified HRM practices in five key areas: Jobs analysis and description, recruitment and selection, training, performance appraisal and compensation. Huselid (1995) identified HRM practices as staff recruitment, selection procedures, compensation systems and performance management, and staff involvement and training. Jeffrey and Donald (2003) suggested that HRM practices include job analysis, recruitment, selection, compensation, benefits, incentives, performance evaluation, and training. Mondy et al. (2002) believed that HRM practices include five basic functions, involving recruitment, human resources development, compensation, benefits, safety and health, labor and personnel relationships. Many studies demonstrated that such practices could lead to the promotion of non-traditional features of HR to help the organization to obtain a competitive advantage and enhance its performance (Delaney and Huselid, 1996; Ahmad and Schroeder, 2002; Guest et al., 2003; Qureshi and Ramay, 2006).

The basic idea about the best HRM practices is that a certain set of these practices has the ability to provide a sort of performance improvement and organizational performance for all organizations (Marchinton and Wilkinson, 2003). Therefore, all organizations must define and implement the best HRM practices in their efforts to improve their performance. There are enough evidences that some types of HRM practices are associated with the performance. However, the effective HRM practices differ in each research. The practices referred to usually include the best practices, the most important of which are: High levels of teamwork, performance-related pay, decision-making decentralization, the overall procedures of staff selection and recruitment, intensive training, the staff participation and internal communication arrangements, interior career opportunities, and large-scale job description (Wiesner and McDonald, 2001; Guest et al., 2003; Michie and Sheehan, 2005).

Supply Chain Performance

Most companies do not have a clear vision for developing efficient performance measures to measure the supply chain performance (Shepherd and Günter, 2006). Sukati et al., (2012) confirmed that the ratification of the supply chain performance should include three different

types of performance measurement, resources measurement, outputs and flexibility measurement. All these types have the same amount of importance in measuring the supply chain performance of industrial companies. Despite the enormous wealth of information available about the different methods to measure the supply chain performance, the researchers still refer to the need for studies to be continued in this field. That is due to the lack of a comprehensive measure of the supply chain for all positions. The existing measure is characterized by lack of clarity (Qrunfleh and Tarafdar, 2012).

There is no consensus among researchers on the best supply chain performance measures (Flynn et al., 2010; Ibrahim and Ogunyemi, 2012). Jeong and Hong (2007) measured the supply chain performance in terms of delivery reliability, responsiveness, flexibility, cost, and efficiency. Sezen (2008) used flexibility, outputs, resources performance in order to measure the supply chain performance. Lee et al., (2007) measured the supply chain performance through using the cost-containment measures and reliability. Ibrahim and Ogunyemi (2012) measured the supply chain performance through using supply chain flexibility and supply chain efficiency. The efficiency and effectiveness aspects have been widely used in the literature to measure the supply chain performance (Li et al., 2006; Lee et al., 2007; Ibrahim and Ogunyemi, 2012; Shatat, 2012).

Organizational Performance

The researchers have not provided any standard definition of organizational performance (OP) (Ou et al., 2010). Some researchers measured the organizational performance of manufacturing enterprises using accounting data such as return on investment (Tan et al., 2002). Some authors, on the other hand, used marketing performance indicators such as product quality and development of new products (Lin et al., 2005). As a result, Li et al., (2006) used in their research the financial performance and financial indicators to measure organizational performance. Kristal et al., 2010, presented evidences in their study that organizational performance can be determined through financial statements. With regard to financial targets, Yang and Su (2009) published eighteen accounting variables to measure the performance of manufacturing companies. Some of these variables included: The rate of return on investment, market share, inventory turnover rate, return on assets, etc. Al-bahussin and El-garaihy, (2013) conducted a study indicating where they measured the impact of HRM practices on organizational performance using seven measurement factors.

CONCEPTUAL FRAMEWORK

Human Resource Management Practices

From the above discussion, the study suggests six key practices for HRM, which are likely to be positively associated with SC performance and organizational performance. The proposed practices are:

Training and Development

'Training and development' is a formal training given to employees. It is designed to develop either technical skills or basic skills, such as work teams, and leadership (Delery and Doty, 1996). Harel and Tzafrir (1999) confirm that training affects performance in two ways: I. Training improves the skills and capabilities. II. Training increases staff satisfaction about their jobs and the workplace.

Teamwork

Teamwork, or the so-called working team, refers to a group of employees created in order to perform tasks, certain activities, or to solve certain problems. The idea of teamwork indicates

that the people exchange knowledge, skill, judgment, and ideas among themselves to get the best results (Sang, 2005). According to Pfeffer (1998), teamwork provides many advantages including: (a) Teamwork relies on work based on peers, rather than the hierarchy, which leads to achieve more effectiveness. (b) Teamwork facilitates the flow of ideas and innovative solutions from team members. (c) Teamwork helps to save administrative costs.

Compensation/Incentives

Compensation or incentive depends on the performance, and the process of providing performance-based incentive compensation, which is considered one of the basic means used by organizations to promote and motivate staff (Delaney and Huselid, 1996). According to Gomez-Mejia et al., (2004) there are three types of compensation plans: The first one is the fixed compensation, the second is the incentive payments, and the third is the indirect compensation.

Human Resources Planning

'Human resources planning' includes expectations of staff needs, the budget required for the staff selection, the number of people participating in the selection, and interviews (Chang and Chen, 2002). Organizations usually need to predict the size of necessary employment requirements to meet future demand. According to Sang (2005), it is necessary to consider the following matters; a) what is the availability rate of manpower in the future? b) Are there enough potential young workers in the labor market, in the next two years or the next five years? c) What is the education level of these potential workers? And d) Do we need to help investment firms in the educational system to help raise the education level of prospective workers or not?

Performance Evaluation

The purpose of performance evaluation is to improve developing objectives, improve the feedback processes in order to directly, and correctly enable staff to improve their performance. According to Sang (2005), performance evaluation helps senior management to understand the existing workforce capabilities in the organization. Gomez-Mejia et al., (2004) suggested that the performance evaluation system could be used for administrative purposes related to employee work conditions, including the promotion, termination of employment, and bonuses.

Job Security

Job security means job safety by installing workforce and work continuity policies (Pawan, 2000). Job security is very important to determine the productivity of labor. The high degrees of job security provided to employees lead to more commitment the organization gets from the staff.

The Relationship of HRM Practices, SC Performance, and Organizational Performance

A number of studies have shown link between HRMP and the organizations performance. For example, Ahmad and Schroeder's (2003) tried to generalize seven effective HRMP proposed by Pfeffer (1998) in the field of industry. The seven HRM practices include; job security, selective employment, decentralization, work groups, compensation/incentives based on performance, intensive training, and information sharing. While operational performance included cost elements, quality, delivery, flexibility, and organizational commitment. The results offered by both researchers presented comprehensive support for the relationship between the seven HRM practices and performance. Chang and Chen (2002) conducted a comprehensive study to assess the relationship between HRM practices and performance in Taiwanese technology companies. Both researchers indicated that HRM practices such as training, development,

teamwork, benefits, human resources planning, and performance evaluation have a significant impact on employees' productivity.

Kuo (2004) conducted a study about the relationship between HRM practices, staff commitment, and performance in health care institutions in Taiwan. The study relied on a group of eleven HRM practices, including selective recruitment, interior job opportunities, human resources planning, training, job security, job descriptions, and work groups, incentive compensation, performance evaluation, staff participation, and staff communications. The researcher concluded that every practice of HRM practices has different degree of impact on the operational performance.

Sang (2005) conducted a study in an attempt to figure out the implications of HRM practices on business performance (operational performance and organization performance in general) in Cambodia and Taiwan. Sang (2005) selected nine practices of HRM, which are: (Human resource planning, recruitment, incentives, evaluation, training, teamwork, and staff participation, individual differences, job security), so as to explore the relationships with the perception of the company's performance (financial and non-financial performance). At the same time, the researcher also tested the nine HRM practices to monitor their effects on four performance criteria: Product quality, product cost, products delivery, and production flexibility. The study results indicated that human resource planning, recruitment; incentives, evaluation, training, teamwork, and staff participation have a positive impact on employee productivity, and organization performance in general.

There are a few papers that provided attempts to evaluate the relationship between HRM and SC management performance. These researches concluded that the development of supply chain management comes from the integration of manufacturing process and marketing process. These researches also confirmed that the performance measures of supply chain management dealt with various problems such as resources and efficiency, costs reduction, and customer service. This has demonstrated that the use of internal human resources development to strengthen the supply chain management practices still needs to be taught properly. These researches confirmed that these efforts would help organizations to improve supply chain performance management.

Based on the review of previous studies and what has been presented above, the proposed model for this study, Figure (1), indicates that HRM variables have been used as an external variable (independent), while the organizational performance variable has been used as a final variable (final dependent variable). The variable of supply chain performance has been used as internal variable of HRM practices, while it is considered in the same time as the external variable of organizational performance (mediator).

Based on the previous presentation and what was supposed to be drawn in the conceptual model of the study (Fig. 1): The following hypotheses could be concluded:

H1: HRM practices positively affect the organizational performance.
H2: HRM practices positively affect the supply chain performance.
H3: Supply chain performance has a positive impact on the organizational performance.
H4: Supply chain performance plays the mediating role between HRM practices and the organizational performance. This is the primary hypothesis, which includes the following sub-hypotheses:

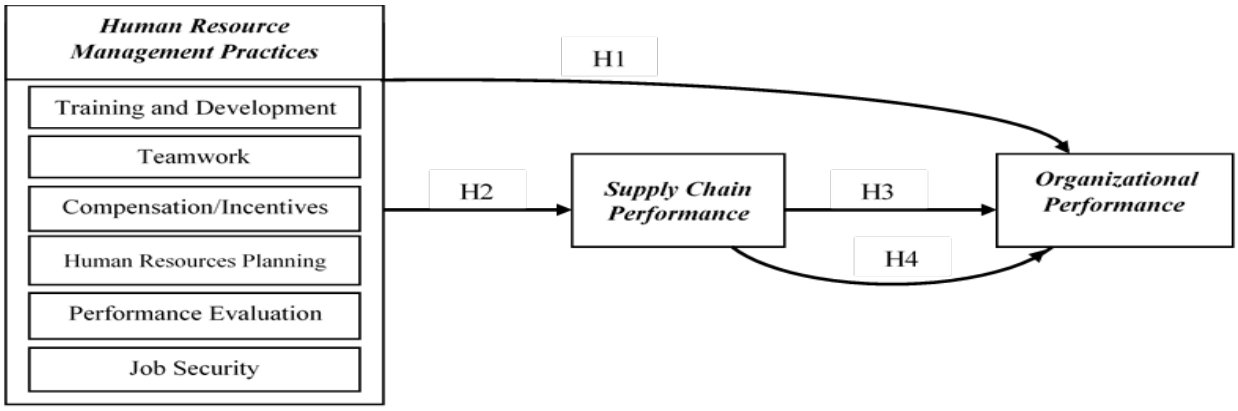

Figure (1) Proposed Study Model

H4 (a): Supply chain performance plays mediating role between the practice of training, development, and organizational performance.
H4 (b): Supply chain performance plays mediating role between the practice of teamwork and organizational performance.
H4 (c): Supply chain performance plays mediating role between the practice of the compensation/incentives and organizational performance.
H4 (d): Supply chain performance plays mediating role between the practice of human resources planning and organizational performance.
H4 (e): Supply chain performance plays mediating role between the practice of performance evaluation and organizational performance.
H4 (f): Supply chain performance plays mediating role between the practice of job security and organizational performance.

METHODOLOGY

It is essential to explore the impact of HRM practices on the organizational performance level, and examine the role of supply chain performance, as a mediator variable in the relationship between HR practices and organizational performance. This could help in proposing an integrated model to explore and analyze those relationships in Saudi Industrial Organizations, through the creation of a conceptual framework that contributes to study and embody those relationships. Thus, the current study seeks, through experiment and analysis, to provide a model to explore the impact of HRM practices on the organizational performance level, and examines the role of supply chain performance as a mediator variable between them. It then proposes a model to help to explore and analyze the relationship between them in the major industrial organizations in Saudi Arabia. Therefore, the current study tries to answer the following questions: Do HRM practices positively affect the level of supply chain performance? Do HRM practices positively affect the level of organizational performance? And, can supply chain performance play the mediating role in the relationship between HRM practices and organizational performance?

This study seeks to achieve a number of important goals, such as: determine HRM practices in the major Saudi organizations to explore their role in improving supply chain performance in those organizations; determine HRM practices in the major Saudi organizations to explore their role in improving organizational performance; and trying to propose a model that helps to explore and analyze the relationship between HRM practices and organizational performance, and the role of SC performance variable as a mediator between them. This could benefit those who are in charge of Saudi Arabia organizations to formulate the basic strategies for their organizations and to support their competitive position, on the one hand. They can also determine whether it was necessary to focus on the development of HRM practices in

those organizations to improve SC performance level, and improve organizational performance, on the other hand.

Study Population and Sample

In order to verify the developed hypotheses, study population has involved all Saudi industrial organizations registered in the Eastern Province Chamber of Commerce on 01/03/2015. The total number of organizations is 448 (the list of the organizations' names is obtained from the Associate Members Department of Commerce Industrial Chamber, Eastern Province). The study sample was selected from the large industrial organizations. Large organizations are meant to be in our study (those organizations that have 200 workers or more), therefore the study sample consisted of 274 organizations. So, the number of distributed questionnaires is 274. The number of correct questionnaires is 218, representing 79.6% of the total number of distributed questionnaires. The survey approach was used to collect information from respondents of this study. SPSS 21, AMOS 21 programs have been used to conduct statistical analyzes.

Survey Design

The survey list consists of three parts, including the following:

HR practices: The variable of HRM practices was measured, using six dimensions, developed by (Qureshi and Ramay, 2006). The six dimensions included training and development (ten elements), teamwork (five elements), compensation/incentives (eight elements), human resources planning (four elements), performance evaluation (five elements), and job security (four elements). That is, the measure included six sub-variables, involving 36 elements for measuring HRM practices.

Supply chain performance, and organizational performance: The variable of supply chain performance and organizational performance were measured, using one dimension for each variable. The dimension of supply chain performance consisted of twelve elements, developed by Shatat (2012). The dimension of organizational performance also consisted of seven elements, obtained from (Al-bahussin and El-garaihy, 2013).

Participants responded to each item of the dimensions of HRM practices, supply chain management practices, and supply chain performance, using the five-point Likert scale [1 = (Strongly Disagree), 2 = (Disagree), 3 = (Neither), 4 = (Agree), 5 = (Strongly Agree)]. The dimension of organizational performance has been answered, using five-point Likert scale [1 = (Significantly Reduce), 2 = (Reduce), 3 = (As before), 4 = (Increase), 5 = (Significantly Increase)]. In summary, the questionnaire consisted of eight sub-dimensions, including 55 elements distributing on the three key variables above mentioned.

STUDY PROCEDURES

Primary Test

All data have been obtained from the survey through questionnaires. The researcher has conducted a pilot test in May 2015. It is useful to conduct a pilot questionnaire, involving at least 10 respondents, in order to emphasize the questionnaire clarity, and the lack of any wrong conclusion adopted by the respondents. Malhotra (1999) confirmed that sample size of pre-test should be small, and include among 15 -30 respondents of experimental test. Accordingly, the sample has been selected from 25 respondents from Saudi major industrial organizations under study. The arithmetic mean and standard deviation were calculated to evaluate each study variable (see table 1).

Table (1) Arithmetic mean and standard deviation of measure elements (sample size = 25)

Human Resource Management Practices		
(1) Job Security:	**Mean**	**Deviation**
1. Workers can expect to stay in position as long as they wish.	5.62	0.81
2. It is difficult to terminate the worker's service in this organization.	5.67	1.06
3. Job security is guaranteed for almost all employees in this organization.	5.51	1.03
4. If the organization has faced economic problems, the workers are the last people to get rid of.	5.24	1.05
(2) Human Resources Planning:		
1. The organization has clear and specific procedures and policies for human resources planning processes.	5.25	1.21
2. The organization spends a large sum of money (as a percentage of the organization's profit) for human resources planning.	5.08	1.08
3. The scope of human resources planning process in the organization depends on many different methods of human resources planning.	5.13	0.93
4. The process of human resources planning in the organization takes long time.	5.21	1.03
(3) Teamwork (working Groups):		
1. When we work together as a team, we always try to make sure that we are all within the team to learn from each other.	5.69	0.91
2. When we work together as a team, I try to find out what other people know, so I will be able to complete my task.	5.15	0.82
3. When we work together as a team, there is an urgent need for the ideas of each individual in the team in order to achieve success.	5.25	0.87
4. When we work together as a team, work is divided so that each individual does part of the work and the others should share in it.	5.02	0.79
5. When we work together as a team, we all can not complete the project until everyone in the team is involved in this work.	5.14	1.04
(4) Incentives and Rewards:		
1. Workers are associated with incentives system based on those with multi-skills and extensive knowledge.	5.16	0.97
2. Workers are given clear motivational objectives by which the performance can be assessed and measured.	5.35	1.06
3. Workers are associated with incentives system that gives the opportunity to earn rewards for achievements.	5.51	0.99
4. Workers are associated with rewards system based on team performance or group performance.	5.25	0.98
5. Workers are given the right to discuss the performance and rewards systems with management.	5.34	0.84
6. Workers are associated with rewards system based on the entire organization's performance.	5.24	0.86
7. There are training opportunities associated with the development of performance.	5.09	0.83
8. Workers are associated with rewards system, connecting part of the salary to performance.	4.84	0.79
(5) Training and Development:		
1. An introductory course is available to workers to help in understanding the organization, its philosophy, and objectives.	5.18	1.19
2. There are equal opportunities for permanent employees of the organization to get training.	5.23	1.12
3. There are opportunities for employees to discuss their own needs of training plan with their managers.	5.18	1.27
4. There are opportunities for employees to work on a plan for career development with their managers.	5.23	1.16
5. There is a personal trainer for the employees, with whom they can regularly talk one by one.	5.33	1.09
6. There are opportunities for the organization workers to attend training courses to improve or learn new skills.	4.78	1.21
7. There are opportunities for the employees to attend training courses on multi-skilled.	5.37	1.08
8. There are opportunities for the employees to attend courses related to extensive topics such as communication skills.	5.03	1.02
9. There are opportunities for the employees to learn about jobs with others on various issues such as customer service and quality management.	4.68	1.18

10.	There are opportunities for the employees to attend courses not relevant to their work, but to achieve personal goals.	5.18	1.12
(6) Performance Evaluation:			
1.	Wages that are paid to our employees closely linked to individual or collective performance.	4.88	1.55
2.	A great deal of effort is spent to measure the performance of our employees.	4.92	1.50
3.	Our reward practices are based on seniority (the number of service years).	4.64	1.70
4.	There is a great deal of participation by the employees in developing goals and evaluating the organizational situation.	4.53	1.67
5.	On conducting a debate about performance, we put a great deal of emphasis on finding ways to personal development.	5.18	1.52
Supply Chain Performance			
1.	The quality of supply chain products was improved within the supply chain of the company	5.21	1.28
2.	On-time delivery was improved within the supply chain of the company	5.23	1.21
3.	The inventory costs were reduced within the supply chain of the company	5.23	1.36
4.	The company's customers feel satisfied with its products and services	5.32	1.25
5.	The operational costs were reduced within the supply chain of the company	5.33	1.18
6.	The information flow is done quickly in parallel with the value chain	4.78	1.30
7.	The respond ability to customers was improved within the supply chain of the company	5.37	1.18
8.	Accurate information for decision-making is usually provided	5.34	1.11
9.	We constantly renew our merits to meet the changing needs of customers	4.68	1.27
10.	We integrate production planning and scheduling between suppliers, manufacturers, marketing, and distributors	5.31	1.21
11.	We take some quick action based on all the information collected continuously along the supply chain of the company	5.42	1.28
12.	We link the information systems so that each member in the supply chain recognizes the others' requirements	5.11	0.97
Organizational Performance			
1.	Market share	5.25	0.95
2.	Return on investment	5.43	1.05
3.	Market share growth	5.62	0.99
4.	Sales growth	5.34	0.94
5.	Growth of return on investment	5.43	0.87
6.	Profit margin on sales	5.33	0.82
7.	General competitive situation	5.18	0.87

Seven-point Likert Scale is used

Data Analysis Methods

Cronbach's alpha coefficient was calculated to examine the credibility. The reliability and arithmetic mean of the dimensions of HRM practices, supply chain performance and organizational performance were calculated. As Nunnally & Bernstein (1994) confirmed, when Cronbach's alpha coefficient equals 0.60 or less, the results of internal consistency is not satisfactory or inadequate. To be acceptable, reliability coefficient must be higher than 0.70. The higher reliability coefficient is; the more credibility and reliability are achieved due to the value of the correlation coefficient between the variables. Moreover, regression analysis was used to prove the theories of the study. The relationship between the independent variables and dependent variables was examined through four (4) steps according to the proposal of Baron and Kenny (1986).

Demographic Characteristics:

Table (2) demonstrates Demographic Characteristics of Respondents. The table indicates that about 61% of the respondents are Saudis, while the rest, 39%, are of other nationalities. The majority of 72% of the respondents was under 45 years, and the rest was more than 45 years.

The table also indicates that about 76% of respondents have a college degree, and 21.5 % have masters or doctoral degree, the rest are under the first university degree.

Table (2) Demographic characteristics (sample size = 218)

Variables	Numbers	Ratio	Variables	Numbers	Ratio
Nationality			Age		
Saudis	133	61	*Under 25 years*	2	0.92
Non-Saudis	85	39	*From 26 to 35 years*	49	22.6
Scientific Qualification			*From 36 to 45 years*	106	48.7
High school	5	2.3	*From 46 to 55 years*	42	19.26
Bachelor	166	76.2	*From 56 to 65 years*	19	8.8
Master or Ph.D.	47	21.5	Total	218	

The empirical test of the items used to evaluate the variables, it is indicated that the the items mean was mostly over 0.5 with a standard deviation above 0.7 (refer to table (1)).

Descriptive Statistics and Credibility Analysis

To assess the internal consistency of reliability standards, Alpha coefficients were calculated (Table 3). Alpha values of the dimensions of HRM practices are as follows: Training and development (α = 0.82), working groups (α = 0.86), compensation (α = 0.89), human resources planning (α = 0.87), performance evaluation (α = 0.91). The job security is (α = 0.93), and the coefficient of the total practices of HRM is very high, (α = 0.90). The results also illustrate acceptable values of the variable of supply chain performance (α = 0.89). Alpha of organizational performance is very high (α = 0.85). Briefly, the values of alpha coefficient of human resources practices, supply chain performance, and organizational performance were above 0.70. Based on those results, and what was confirmed by Nunnally and Bernstein (1994), it is concluded that the elements and scales used in the study have high reliability. The average values of the variables of our study are also as follows: Training and development (5.63), working groups (5.52), compensation (5.44), human resources planning (5.37), performance evaluation (5.33), the job security (5.21). The Results also demonstrate an acceptable average of the variable of of supply chain performance (5.47). The organizational performance was very high (5.49). The standard deviation was above 0.70 of all scales used in the study, which is considered a positive indicator.

Table (3) Results of descriptive statistics and reliability (sample size = 218)

Variables	No. of Items	*m*	*SD*	Cronbach's Alpha Coefficien
Training and Development	3	5.63	0.77	0.82
Teamwork (work groups)	4	5.52	0.81	0.86
Remuneration/incentives	5	5.44	0.90	0.89
HR Planning	8	5.37	0.91	0.87
Performance Evaluation	10	5.33	0.86	0.91
Job Security	5	5.21	0.78	0.93
HR Practices	35			0.90
Supply Chain Performance	12	5.47	1.12	0.89
Organizational Performance	7	5.49	1.47	0.85

Seven-point Likert Scale is used

Hypotheses Testing

Regression analysis was used with the procedures referred to by Baron and Kenny (1986). It includes four separate procedures of analysis. This can be displayed as follows:

1st, 2nd, and 3rd Hypotheses Test

Regression analysis results supported the validity of the first, second, and third hypotheses. It can be referred to tables (4, 5, and 6) to illustrate this, as follows: The results of (table 4) confirmed validity of first hypothesis that HRM practices positively affect organizational

performance, where the results were as follows (β = 0.51, P = 0.00). The results of table 5 also confirms the validity of the second hypothesis that HRM practices positively affect the supply chain performance, where the results were as follows (β = 0.58، P = 0.00). Finally, the results of (table 6) confirmed the validity of the third hypothesis that the supply chain performance positively affect the organizational performance, where the results were as follows (β = 0.73، P = 0.00). Accordingly, the hypotheses from the first to the third were accepted.

Table (4) 1st Step – Regression analysis between HR practices with organizational performance

Variables	B	β	t-value	p-value	R	R^2	F-value	E-value
Fixed	4.28		2.15	0.04	0.67	0.45	47.1	0.00
Training and Development	0.21	0.14	1.93	0.04				
Teamwork (work groups)	0.54	0.38	3.68	0.00				
Remuneration/incentives	0.28	0.24	2.49	0.02				
HR Planning	0.02	0.02	0.20	0.86				
Performance Evaluation	0.06	0.06	0.61	0.56				
Job Security	0.30	0.16	2.01	0.03				
Fixed	5.78		12.92	0.00	0.45	0.20	77.51	0.00
Organizational Performance	3.30	0.51	8.46	0.00				

Significance = 0.05

Table (5) 2nd Step – Regression analysis between HR practices with supply chain performance

Variables	B	β	t-value	p-value	R	R^2	F-value	E-value
Fixed	1.57		0.74	2.04	0.77	0.61	79.54	0.00
Training and Development	0.25	0.13	3.35	0.04				
Teamwork (work groups)	0.44	0.25	0.77	0.00				
Remuneration/incentives	0.67	0.39	0.74	0.04				
HR Planning	0.10	0.08	4.30	0.06				
Performance Evaluation	0.18	0.21	3.35	0.01				
Job Security	0.56	0.16	0.77	0.03				
Fixed	21.51		12.93	0.00	0.56	0.32	121.67	0.00
Supply Chain Performance	4.72	0.58	11.01	0.00				

*** Significance = 0.05**

Table (6) 3rd Step – Regression Analysis of Supply Chain performance with Organizational Performance

Variables	B	β	t-value	p-value	R	R^2	F-value	E-value
Fixed	7.48		5.72	0.00	0.74	0.54	291.26	0.00
Organizational Performance	0.60	0.73	17.08	0.00				

Significance = 0.05

Table (7) The Fourth Step – The Impact of Mediating of Supply Chain performance on the Relationship between HRM Practices and Organizational Performance

Variables	B	β	t-value	p-value	R	R^2	F-value	E-value
Fixed	3.71		2.02	0.04	0.75	0.57	57.80	0.00
Training and Development	0.15	0.14	1.13	0.04				
Teamwork (work groups)	0.29	0.29	1.96	0.05				
Remuneration/incentives	0.22	0.21	1.94	0.05				
HR Planning	0.40	0.14	1.12	0.03				
Performance Evaluation	0.19	0.12	-1.40	0.15				
Job Security	0.43	0.42	7.80	0.03				
Supply Chain Performance	0.04	0.05	0.31	0.74				
Fixed	7.01		4.83	0.00	0.73	0.53	149.1	0.00
HR Practices	0.70	0.12	2.00	0.05				
Supply Chain Performance	0.54	0.68	13.11	0.00				

*** Significance = 0.05**

The results indicate that HRM practices are precedent to achieve the organizational performance. Moreover, HRM practices positively affect supply chain performance. The supply chain performance at the same time has a significant impact on organizational performance. Therefore, Saudi Industrial Organizations should possess a deep awareness of the capabilities of human resources practices and the need to adopt distinct practices, contributing significantly to achieve outstanding performance of the supply chain, which would contribute to raise the level of organizational performance.

Fourth Hypothesis Testing (Mediator Role Test of Supply Chain Performance)

The results confirm that the variable of supply chain performance has the ability to play partial mediation role of the relationship between HRM practices and organizational performance. Table (4) indicates that Training and Development (β = 0.14, P = 0.04), Teamwork (Working Group) (β = 0.38, (P = 0.00), Compensation/Incentives (β = 0.24, (P = 0.02), Job security (β = 0.16, (P = 0.03). These results indicate that these four practices are the HR practices, which have the most impact on organizational performance. The results of table (5) demonstrate that Training and Development (β = 0.13, (P = 0.04), Teamwork (Working Group) (β = 0.25, (P = 0.00), Compensation/Incentives (β = 0.39, (P = 0.04), Job security (β = 0.21, (P = 0.01), and performance evaluation (β =0.16, (P = 0.03). These results indicate that these five practices are the human resources practices, which have the most impact on the supply chain performance. The results of table (7) indicate that the variable of the supply chain performance completely mediates the relationship between training and development (β = 0.14, P = 0.0), Teamwork (Working Group) (β = 0.29, (P = 0.05), Compensation/Incentives (β = 0.21, (P = 0.05), Job security (β = 0.42, (P = 0.03) on the one hand, and between organizational performance on the other hand. Therefore, the hypotheses 4(a), 4(b), 4(c), and 4(f) were strengthened and approved, so that these hypotheses are accepted. On the contrary, the variable of supply chain performance did not succeed in playing the mediating role in the relationship between both of human resources planning and performance evaluation on the one hand and the organizational performance on the other hand. Accordingly, the hypotheses 4(d) and 4(e) are rejected. As table (4) indicates, HRM practices positively affect the organizational performance (β = 0.51, p = 0.00). Table (6) also indicates that the variable of supply chain performance directly and positively affects organizational performance (β = 0.73, p = 0.00). As noted before, the variable of supply chain performance is an essential and important variable to achieve an excellent level of organizational performance, particularly in the industrial sector. The supply chain performance was measured as a mediator variable as in table (7) indicating that the variable of supply chain performance mediates the relationship between HRM practices and organizational performance (β = 0.12, p = 0.05). In addition, the R^2 value raised from 0.20 in table (4) to 0.53 in (table 7). β value decreased from 0.51 in (table 4) to 0.12 in (table 7). Therefore, hypothesis 4 was partially strengthened and accepted, but not completely.

DISCUSSION AND CONCLUSION

This study provides a comprehensive evaluation and review of HRM practices, and supply chain performance that enhances product quality competitiveness ability, and thus increasing profitability as a primary objective in the economic field. The analysis of collected data emphasized the validity of the first, second, and third study hypotheses. The fourth hypothesis was accepted in part after the rejection of sub-hypotheses (d, e). The results indicate that there are statistically significant relationships between HRM practices, supply chain performance, and organizational performance. This study also provides proof of the hypothesis that human resource practices affect the supply chain performance, leading to a high indicator of organizational performance. The results directly indicate that there is a positive relationship between HR practices and organizational performance. It significantly seems that the impact of HRM practices on organizational performance is controlled by the effective performance of

supply chain management. As proof of the existence of an effect of mediation, HRM practices play a positive role in enhancing organizational performance through the effective performance of the supply chain.

The analysis based on the collected experimental data demonstrates that HRM practices can not only establish an effective level of supply chain performance, but can also strengthen the ultimate goal of the organization. This can achieve a high level of organizational performance, which in turn affects the competitive advantage of organizations. Thus, HRM practices are very important in their direct impact on the functions of other organization departments. Therefore, it can be concluded that HRM can significantly contribute in achieving a high level of supply chain performance, which in turn can help to achieve an excellent level of organizational performance.

This study aimed to indicate the effects of HRM practices on the efficiency and effectiveness of supply chain performance and organizational performance through a sample consisted of two hundred and seventy-four large industrial organizations in Saudi Arabia. Based on the study, it can be concluded:

i. The results of the HRM practices impact on the efficiency and effectiveness of supply chain performance and organizational performance are in line with previous research. Our study confirms that the HR practices implemented by Saudi Industrial Organizations are good indicators of the efficiency and effectiveness of the supply chain performance and organizational performance. Thus, the Saudi Industrial Organizations need to implement those practices to enhance organizational performance.
ii. This study contributes to verify the impact of HRM practices on the efficiency of supply chain performance and organizational performance. The results of this study reveals that HR practices such as, training and development, teamwork (working groups), compensation/incentives, and finally job security, are the most important practices that affect the efficiency and effectiveness of the supply chain performance and organizational performance. Therefore, the Saudi Industrial Organizations have to adopt and implement those practices, while working to develop the existing practices to enhance their supply chain performance, and enhance their organizational performance.
iii. The results indicate that the impact of HRM practices on the efficiency and effectiveness of the supply chain performance and organizational performance is an important and positive matter in light of the high levels of intensive competition. The current study provides contradictory and varied results regarding the impact of HRM practices, this study is an extension of the literature in the areas of HRM and supply chain management. It refers to the importance of such practices as a good indicator of the efficiency and effectiveness of chain performance and organizational performance in highly competitive environments.
iv. The most important result of this study is that the association between variables (HRM practices, and organizational performance) is not only because of their direct relationship, but because of many other factors that play a mediating role between them. Supply chain performance is one of those variables that are highlighted and approved in this study.

MANAGERIAL IMPLICATIONS AND FUTURE RESEARCHES

The formulation of human resources practices has a very strong impact on organizational performance. Therefore, the success of efficient implementation of human resources practices

will help to increase the level of workforce performance and behavior, which is reflected on the supply chain performance, and organizational performance. On the other hand, human resources practices can help to increase the chain performance level. Organizations should have profits by recognizing that the effective performance of supply chain is a result of the employees and other stakeholders' performance, which lead to a distinct level of organizational performance. Therefore, HRM practices can be employed to drive supply chain management to generate strong functional relationships and create a distinct level of organizational performance.

It is expected that the results of this study will be very practical and useful for both academics and practitioners. The reason is not only it will expand the extent of the study at the academic level, but also it may help active managers to understand the importance and the role of human resources in increasing the efficiency of supply chain performance. This in turn will help managers to achieve an excellent level of organizational performance, which is a vital goal of each organization. This study has brought in light several effects that may be beneficial for supervisors, and senior officials working in Saudi industrial sector, through which they can achieve an excellent level of organizational performance by investing in HRM practices and effective supply chain performance.

Because of the easy transportation of technology and systems, it has become very difficult to compete in the markets. If an organization wishes to have an effect in the market, it has to bring some systems that cannot be easily imitated by competitors. In this case, the role of human resources rises, as any system in which the focus is on individuals that cannot be easily moved or imitated. Thus, this study emphasizes the need for managers and practitioners to focus on the area that can be exploited to increase the size of the operating results of human resources. With increasing interdependence among jobs, it becomes necessary for organizations to bring some human resources practices that help the organization members in dealing with such a correlation among jobs. It is also expected from the results of this study to help managers to identify the different human resources practices that need to focus on improving the supply chain performance, thereby achieving an excellent level of organizational performance, which is one of the most important vital objectives of each organization.

Despite the effective contributions, this study leaves some range for further improvement. Therefore, there are number of things that could be considered and implemented for future studies such as: First, Sample selection of the target community should be equally distributed rather than the focus on certain specific area or a particular field. It should be focused on using a larger sample to increase the dissemination of results. Second, there are another set of variables that can be considered as mediator variables in order to increase our understanding of the relationship between HRM practices and organizational performance. For example, a research can be conducted to verify the relationship between HRM practices and organizational performance by the following different variables: employee's performance, motivating employees, employee's loyalty, and SCM practices.

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Long Run Relationship between Oil Revenue and Economic Growth in Nigeria.

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Abstract

The paper study the impact oil revenue on Nigeria's economic growth using Vector Auto Regressive (VAR) model. It was established that oil revenue serve as a major source of foreign earnings, public revenue and budget. Since oil price is determined by demand and supply in the international market any slight change in price affect the revenue. The objective is to examine the effect of oil revenue fluctuations in the Nigerian economy. The type of data used is time series from secondary source. The methodology used to achieve the objective isVector Auto Regressive (VAR) model. It was discovered that the log of oil revenue (OR) is negatively related to the GDP. This means that there is mismanagement of oil revenue in the country. Revenue from oil failed to create linkages to other sectors of the economy .it is therefore recommended that government should provide the necessary infrastructures to diversify the productive base of the economy.

Key words: oil revenue, economic growth: GDP, vector auto regressive model (VAR)

INTRODUCTION

Oil is naturally regarded as a gift from God, as theoretically regarded as a major source of income (foreign exchange earner) to the government. A high ratio of oil revenue over GDP can facilitate economic development, if the resource revenue is used to boost level of public investment. The major question to ask here is why does oil revenue is fluctuates? Many researches tried to provide answers through the mechanisms in which volatility is transmitted. Since 1970s, changes in the price of oil have been an important source of economic fluctuations as well as paradigm of global economic shock, this affects many macroeconomic indicators in Nigeria. More specifically, the upswings and the downswings in the price of oil resulted to instability in the government revenue generated from oil. This affected both the level of public revenue, public investment lower output and consequently the level of growth in the economy. Furthermore, in so far as oil is the dominant source of government revenues and given that the public sector is the main driving force in the economy as it is the major recipient of oil rent, it was obvious that the large albeit periodic shocks from the world oil market would constitute a powerful destabilizing influence on government fiscal operation as well as economic planning and management.

LITERATURE REVIEW

DFID (2005) asserted that between 1970 and 1993, countries without petroleum resources grew four times more rapidly than petroleum rich countries. It was noted by World Bank (2003) that between 1970 and 2000 the number of petroleum rich states with disappointing outcomes in terms of economic growth and poverty alleviation far out weighted the number of successful outcomes. Some of the reasons given by World Bank are under developed

governmental institutions and weak civil society participation as strong factors leading to the inadequate management often very substantial windfalls from oil exports.
Al Mulali and Che Sab (2010) conducted a study on the impact of oil shock on Qatar's GDP, using time series data from 1970 – 2007 covering all the oil shocks. They used Johasen-juselius cointegration test (VAR) and vector and error correction model (VECM). The study used four variables to measure the impact, these are GDP, Oil price, total trade value and inflation. It was found that oil price have a longrun postive relations with gross domestic product but at the expense of higher inflation. Qatar, seems to suffer from financial surpluses and rapid economic growth caused by sharp increase in oil prices. At the same time, with a fixed exchange regime and tight monetary policy to deal with these events, this has caused the price of assets to increase sharply, leading to a high levels of inflation in the country.

Mehrara, Maki and Tavakolian (2010) examined non linear relationship between oil revenue and real output growth in Iran between 1959-2007 using Threshold Error Correction Model. The estimation result showed that the response of economic growth to oil revenue growth in low regimesof oil revenue is greater than in high regimes of oil revenue. In the study, three variables were used i.e GDP, Real oil revenues and capital accumulation. It was concluded that capital stock has the greatest effect on economic activity in regimes of low oil revenue. The effect is not significant, civil projects in periods of high oil revenues are likeli to have lower productivity leading to more rent seeking.

Aliyu (2009) present a paper on oil price shock and macroeconomy using non- linear approach. He used Granger causality test and multivariate VAR analysis using five variables. GDP, oil price, money supply and government expenditure. It was found that non linear models have positive impact on GDP than assymetric oil price which results to a decrease on the GDP.

Kilian (2009) examined the effect of oil price volatility from both the demand and supply sides. He argued that there is a difference between demand between supply shock has effect depending whether a country is oil exporter or importer.Negative effects of oil shock is more harmful to oil importing economies: the adverse effects on economic growth can be viewed interms of trade shock: such shock have traditionally been thought to have effect on production decisions, because oil is seen as an intermediate input in production of goods. Under standard assumption oil is considered as an imported commodity therefore it enters the production function of domestic gross output this can otherwise been interpreted as productivity shocks for real GDP similarly increase oil price act as a cost shock to domestic output:

There were alot of literatures that focused on the reduction of demand for goods and services triggered by energy price shocks rather than treating energy price shock. Hamilton 2008 stresses that a key mechanism where by energy prices affect the economy is through the distruption in consumers and firms spending on goods and services other than energy. This view is consistent with the evidence from industry sources of how oil price shock affect US industries. Most US firms percieve energy price shocks to the demand for their products rather than shocks to the cost of producing these products, Lee, Ni 2002.

Rajhi, Ben Abdallah, and Hmissi (2006) examined the impact of oil price shock in 24 African economies. They used an annual data of oil price from1960-2002 period, using cointegration techniques and Granger causality procedure, to examine the oil price relationship with some macroeconomic indicators (namely GDP,consumer price index,current account balance, overall budget balance and total reserves). The result showed that African economies are influenced significantly by fluctuations in oil prices either through the longrun equilibrium

conditions for some of them, or via shortrun direct impacts for others. The analysis has gone to exploration of response functions of changes in GDP and CPI to an impulse in oil prices. For many countries, results gave strong evidence that an oil price shock event is highly disruptive for the economic activity.

Moradi (2009) conducted a research on "Oil resource abundance, economic growth and income distribution in Iran" between 1968 -2005. He used time series of Auto Regressive Distributive Lag approach and Error Correction Model (ECM). The variables used in this study are economic growth, and income distribution. The findings of the study confirmed that there is a longrun positive effect between oil abundance and GDP. The result from both models highlight the importance of natural resource abundance and confirms that oil revenue has a positive effect on gini coefficient. The magnitude of coefficient in both models are confirming the effects is minor. So the effect of oil revenue on income distribution is not very strong. The findings show that physical and human capital have positive and significant effect on GDP in the longrun. Moreover, the study found that oil abundance have negative and significant effect on income distribution of Iran. He concludes that countries can get more benefits from oil revenue if it is converted towards efficient activities. This means that there is huge need to revise bugdeting systems.

MANAGEMENT OF OIL REVENUE

Historically the economies of most oil exporting countries in the developing world have grown at a slower rate than resource poor countries. This has been supported by Ranis (1991), Sachs and Warner (1995) Auty (2001) and Gylfason (2001). Some of the reasons that can help explain this phenomenon include government corruption, mismanagement of revenue windfalls and Dutch disease (Slaibi and kyle 2006).

The government pension fund – a global run by Norway is accepted as a good example of effective management of oil revenues. The distinctive feature of this fund is that it is an integral part of the general budget process, because the explicit use of the fund is to support non- oil budget deficits. Transfers into or out of the fund take place according to the non oil budget deficit which itself is determined through budgetary process. The fund keeps the parliament fully informed of its activities. It also publishes complete audited statements while providing good returns (Bacon and Tordo 2006). A part from this, the Norwegian government petroleum fund was established in 1990 with two main purposes. First, to act as a buffer to smooth fluctuations in oil revenues and mitigate exchange rate pressures to avoid Dutch disease and preserve a diversified industrial structure. Secondly, to save part of current oil rents to help address future needs related to the aging population and the eventual decline in oil revenues. At the end of 2001, the size of the fund corresponded to about 45 percent of GDP. The income of the fund consists of government net cash flow from petroleum activities plus the return of capital. Its expenditures are transfers to the goverment's budget. Thus, the fund is an integrated part of the budget: higher government spending or lower taxes from the mainland activities result in smaller allocations to the Fund. The annual allocation of oil revenues between budget and the fund is flexible, depending on stabilisation considerations (Eifert, Gelb &Tallroth, 2003).

In Alaska (Goldsmith, 1992) argued that since oil was discovered in Prudhoe Bay over 25 years ago, the government depends on state taxes and royalties from oil production. Oil revenue makes up 85 % of the state general revenue and creates 30 percent of Alaska's Personal income. The fiscal strategy taken by Alaska in order to manage its oil revenues is by cutting spending, use permanent fund earnings, encourage economic development, levy taxes, conceive and invest windfalls. These according to Goldsmith are some of the measures by the

government to avoid the impact of fluctuations in oil revenue. Alaska has a permanent fund which it invest. This fund s funds out of the state and its returns part of the earnings as dividends to the residents of Alaska as direct cash payments, amounting to nearly US$ 2000 per person in year 2000. The design of the Alaska dividend system reflects the strong individualistic character of the Alaskas and sense of knowing better than the politicians how to use their money (Eifert et al, 2003). In 1976, Alaskans approved a constitutional amendment creating a saving account called Alaska permanent fund. The amendment requires that a portion of oil and other source revenues should go into the fund. The Alaska constitution prohibits spending the principal of the permanent fund, but allows appropriation of earnings. Today it has a balance of about $13 billion including earning reserve. After inflation the fund produces $500 million annual earnings which go into the

Alaska Economy through Annual Dividend Payments

The management of oil wealth in Soa Tome used a principle which is basically under the Milton freedman's permanent income hypothesis. This implies that constant government consumption (in real terms) of oil resources overtime and its equivalent on interest income or the net present value of the country's oil wealth by definition exportation will be stable, thus avoiding boombust cycles. The permanent income hypothesis entails the use of permanent fund for future generations to secure intergeneration equity and, guarantee permanent flow of resources that will foster economic development even after oil resources have been exhausted. All financial resources owed to the state as oil revenue are deposited in the National Oil Account (NOA) with the central bank on behalf of the government, with a foreign custodian bank. With strong aggregate fiscal discipline oil exporters can manage windfall revenues even without an oil fund, a country could prosper well as Indonesia did in the 1970s (Usui 1997 and Davis et al 2003).

Indonesia's experience is quite different from others. The country doesn't have any stabilization or oil fund. Rather during the first oil boom, it devoted the income earned to a wide variety of programmes especially in agriculture to rural areas and, labor intensive public works program me that appears successful. Elfeert, Gelb and Tallroath (2002) and Pinto (1987) argued that Indonesia's management of oil revenue is quite different from Nigeria's experience for two reasons. One is the difference in power base of the government. In addition to the army-was GOLKAR groups with strong representation of farmers, women, workers and youths rather than a narrowly based political party. This provide vehicle for developing consensus and reduced rivalry over how oil revenues were to be spend. Second, Indonesians economy was over whelming rural. In 1970 only about 17 percent of the population live in the urban areas. In Indonesia agriculture and increasingly labor intensive industry is the direct concern of the government. Another area of concern is the quality public of spending as well as policies that will protect the real exchange rate.

METHODOLOGY

The type of data used in this study is secondary data (time series). It is sourced from Central Bank of Nigeria (CBN), Organisation of Petroleum Exporting Countries (OPEC website) and Energy Information Administration (EIA). Data sourced covered the period 1970 to 2009. In addition to this, variables considered in the study include exchange rate (sourced from CBN statitical Bulletin), GDP (in real values was sourced from CBN web sites), and oil price (UK Brent in US dollars) was sourced from EIA and OPEC websites. Value of exports was sourced from both EIA and CBN and value of oil revenue (OR) is obtained by multiplying oil price by quantity of oil exports.

TECHNIQUES OF ANALYSIS

In this study, econometric model of analysis is employed to examine the relationship between oil revenue and economic growth in Nigeria. Vector Auto Regressive (VAR) model is used to measure the dynamic relationship among variables. The model is choosen as it treats all variables as endogeneous. At the sametime the model is useful for forecasting a system of interelated time series and, for analysing the dynamic impact of random disturbances on the variables. Five variables are used in the study which include; oil price, exchange rate, oil revenue and total oil export as the independent variables while the GDP as the dependent variable.

MODEL SPECIFICATION

The model used in this research is vector auto-regressive. It is used to analyze the dynamic relationship among the variables used. VAR analysis can also be used to evaluate the performance of large scale macroeconomic models.

GDP= f (EXG, OR) 3.1

The vector autoregressive model (VAR) is presented as

P

YT P¦3k ytk Ht (3.2)

K 1

Where Pis a vector of constants, and Ht is a g-vector of white noise residuals at time t with zero mean and constant variance.

The model (VAR) comprises of three stages. The first stage, is to test for the stationarity of the variables. This is possible through the unit root test, and will enable us to find out if the variables GDP, OP, EXG, OR and EXP are stationary or not. The Augmented Dickey Fuller and Phillips Perron test is used to test the stationarity of the variables. Secondly, if all the variables are found to be stationary of the same order, then cointegration test is to be used, to determine the longrun relationship between the dependent and independent variables. Under cointegration, Johansen and Julius test is to be used. This allow us to specify the VAR at level or the through reparamatization of the variables. Similarly VAR can also be specified using the – matrix. Meaning that – DE1 D= error correction adjustment (shortrun equilibrium) and E = longrun equilibrium. Thirdly, after determining cointegration, the vector errorcorrection model (VECM) will be used to investigate the temporal shortrun causality between the variables. The VECM allows us to capture both the shortrun and longrun relationships. The last aspect of the model is to test for causality. This causality may be short run causality i.e Granger causality test, and there is weak exogenality test that provides longrun relationship among the variables.

The variables used in this study include Real Gross Domestic Product (GDP), Real Exchange Rate (EXG), Oil price (OP), Oil Revenue (OR) and Total Oil Export (EXP). Table 4.1 presents the summary of unit root tests results at both levels. The Augmented Dickey Fuller test (ADF) and Phillips – Perron test were conducted on all the variables. The result of the unit root showed that all variables are stationary at both levels and at first difference as well as constant and a trend at 1% level of significance. This allows us to conduct cointegration test on the first difference for the four variables. The result found the presence of cointegration among the variables.

Table 4.1 Unit Root Test Results

Variable	At level		At first Difference	
	ADF	PP	ADF	PP
RealGDP	-2.358	-2.179	-11.682***	-17.578***
Exchange rate (EXG)	0.981	0.285	-11.013***	-11.007***
Oil Price (OP)	-2.131	-2.094	-12.474***	-12.507***
Oil Export (OE)	-2.929	-5.524	-21.156***	-21.607***
Oil Revenue(OR)	0.8886	0.6821	0.0000	0.0000

Source: authors computation, E-Views, 6.0, 2011.

***Stationary at 1% to both ADF and PP.
Note that * - represent stationarity at 10%.
** - represent stationarity at 5%
*** - represent stationarity at 1%.

The log of oil exports and oil revenue, are all I (1) at level of Phillips Perron test. The remaining three variables are not cointegrated to the order of 1. That they are I (0). This means that there are only two cointegrating variables. Oil price in model one and oil revenue in the second model are all cointegrated with GDP. This allows the researcher to conduct Johansen cointegration test since some of the variables are of the same order.

Table 4.3 Lag Length Selection Criteria from VAR Estimates (using Model Two.)

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-1108.335	NA	1575.914	15.87622	15.93926	15.90184
1	-602.0514	983.6377	1.295087	8.772162	9.024303*	8.874625
2	-593.4680	16.30839	1.303084	8.778114	9.219361	8.957424
3	-572.9526	38.09999	1.105954	8.613609	9.243961	8.869765
4	-570.7076	4.073091	1.219069	8.710109	9.529566	9.043112
5	-569.2741	2.539395	1.360128	8.818201	9.826764	9.228051
6	-554.2824	25.91416	1.251109	8.732606	9.930275	9.219303
7	-527.3699	45.36687	0.971377	8.476712	9.863487	9.040256
8	-496.8450	50.14793*	0.716910*	8.169215*	9.745095	
	8.809605*					

Source:Research ers computation

LR: sequential modified LR test statistic (each test at 5% level)

FPE:final prediction error
AIC: Akaike information criterion
SC: Schwarz information criterion
HQ: Hannan-Quinn information criterion

From table 4.3, model two establishes relationship between GDP, EXG and OR. Based on Schwartz information criteria, lag one is the optimal lag to be selected. Others such as LR, Akaike Information Criteria, Final Prediction Information Criteria and Hannan-Quinn Information criteria prefers lag eight as the optimal lag.

Table 4.6 Unrestricted Cointegration Rank Test (Trace) (Model Two)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.202908	48.68414	42.91525	0.0120
At most 1	0.063528	15.57356	25.87211	0.5272
At most 2	0.040202	5.990745	12.51798	0.4615

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Table 4.7 Unrestricted Cointegration Rank Test (Maximum Eigenvalue) Model Two

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.202908	33.11058		
25.82321	0.0046 At most 1	0.063528	9.582813	
19.38704	0.6634			
At most 2	0.040202	5.990745	12.51798	0.4615

Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

The tables 4.6 and 4.7 show the number of cointegrating equations in the second model of the study. The tables showed that there is only one cointegration at 5% level at a none hypothesized cointegrating equation. Meaning that the Johansen procedure using Trace test and Maximum Eigenvalue statistics indicate only one cointegration. This cointegration is found by comparing the trace test statistics with its critical value at 0.05. If the trace test is higher than the critical values this means that there is the presence of cointgration. Similarly, the maximum Eigen value test is found by comparing the maximum eigenvalue with its critical value at 0.05. If the maximum Eigen value is higher than critical values it means that there is cointegration. In this case 33.11058 is higher than 25.8232, indicating one cointegration. So also the trace test 48.6 is higher than 42.9 indicating one cointegration.

Table 4.9 Normalized cointegrating coefficients (Model Two).

LGDP	EXG	LOR	Adjustment coefficient
1.00000	-1.470187	127.7247	-6.260426
	(0.49250)	(21.3749)	(1.11535)

Source; Researchers Computation using Eviews 6.0, 2011.
From the above table, when GDP is normalised with respect to other variables, EXG is positively related to GDP, while OR is negatively related to GDP. This implies that a percentage increase in exchange rate may change the GDP with about 14.7% and a percentage increase in

OR may led to a reduction in the GDP. The first relationship in the model meets the apriori expectations of the theory. Secondly, the negative relationship between oil revenue and GDP is interpreted as the way Nigeria's government utilises the oil revenue. Revenue from oil failed to create linkages with other productive sectors of the economy like agriculture and manufacturing. Similarly, government utilises the revenue in an unproductive way (by increase in government expenditure e.g salary increment), rather than investing in productive ways. The adjustment coefficient will take 6.26% per quater. To adjust to full equilibrium at 100% may take 16 quaters.

Table 4.12 showing Longrun Weak Exogeneity of the Variables (Model Two).

Null Hypothesis (H_o)	**Chi Square X^2**	**P- Value**
A(1,1) = r	0.008241	0.927667
A(2,1) = r	1.900236	0.168052
A(3,1) = r	23.49701	0.000001

Source: Researchers Computation using Eviews 6.0, 2011.

From table 4.12, in a cointegrated system, if a variable does not respond to the discrepancies from longrun equilibrium relationship, it is weakly exogeneous. Hence if the speed of adjustment parameter is zero, the variable in question is weakly exogenous. Model two indicates that the first variable which is the GDP is statistically significant at 0.927 and is greater than 0.05, therefore endoeneous to the system. The second variable shows asignificant relationship with the first variable and is greater than 0.05. The third variable is the OR which is weakly endogeneous to the system. This showws that there is unidirectional relationship from GDP to OR not from OR to GDP.

CONCLUSION

1. The study found a negative relationship between oil revenue (OR) and GDP in the second model. But the researcher attached it to the mismanagement of oil revenue by public authority.
2. Instability in government polices result to fluctuations in the value of Naira. From fixed exchange rate to flexible exchange rate. This may affect other economic variables like GDP etc.
3. The study found that oil revenue volatility affects government planning decision to invest. I.e. either within the domestic or foreign investment, this has policy implication by neglecting the important, sectors of the economic like power, manufacturing etc. Rather foreign investment dominates the economy as is evident in the inflow of Chinese and their products in our markets. Thus retard economic growth in some periods under the study.
4. Increase in oil price within the period of study has impacted the economy seriously by increase in revenues from oil and a rise in foreign reserve, i.e. why the utilization of the revenue is less effective in achieving macroeconomic stability in the country as is evident in developed economies.

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An Integrated Framework for Diffusion of e-SCM by SMES in Sub-Saharan Africa

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Abstract

The purpose of this study is to examine factors affecting electronic supply chain management (e-SCM) adoption and diffusion by Small and Medium Enterprises (SMEs) and to propose an integrative framework for successful management of e-SCM by SMEs in Sub-Saharan Africa. In this study we review existing literature and make some propositions for future empirical research. Building on existing framework this study integrates innovation diffusion theory, upper echelon theory, technology, organisation, environmental model and institutional theory and propose an integrated framework for e-SCM adoption and diffusion. The paper presents a contribution in the field of e-SCM, especially for SMEs in Sub-Saharan Africa.

Keywords: Electronic Supply Chain Management (e-SCM), Innovation, e.business, Technology-Organisation-Environment (TOE), Upper Echelon Theory (UET)

INTRODUCTION

Existing literature has shown that many SMEs are still not implementing e-SCM (Alam & Ahsan, 2007), even though, e-SCM is emerging as powerful strategic tool in helping businesses achieve shorter sales period, reduction in cost of sales, better cooperation with suppliers and customers and overall operational efficiency. Giménez and Lourenço (2008) define e-SCM "as the impact that internet has on integration of key business processes from end-user through original suppliers that provide products, services and information that add value for customers and stakeholders". Hence it is important to understand the adoption and diffusion of e-SCM by SMEs. It appears from literature that research on e-SCM adoption by SMEs in Sub-Saharan Africa is scarce, and that most of the Internet-based studies is conducted in advanced economies with mature markets (Zhu, Kraemer, & Xu, 2006). Thus, Zhu et al. (2006) has called for theories developed in industrial countries to be re-examined in the context of less developing countries. In addition, some of the recent studies reviewed on internet application by SMEs in Africa (Awa, Awara, & Lebari, 2015; Guercini & Runfola, 2015; Iddris, 2012; Molla & Licker, 2005a; White, Afolayan, & Plant, 2014), had focused on e-Commerce neglecting the area of e-SCM adoption and diffusion. This paper focuses filling this gap in literature by studying factors affecting e-SCM adoption and diffusion by SMEs and to propose an integrative framework for successful management of e-SCM by SMEs in Sub-Saharan Africa.

This paper is structured as follows. In the next section, the existing literature on e-SCM innovation and innovation assimilation is reviewed. Thereafter, the theoretical model of the study is presented, followed by some developed propositions to address e-SCM capability

issues which may confront SMEs in Sub-Saharan Africa in an attempt to adopt and use this innovations, finally conclusion and suggestions for future study is presented.

LITERATURE REVIEW

Previous e-SCM research

Skjøtt-Larsen, Kotzab, and Grieger (2003) integrated transaction cost theory, network theory, resource-based theory into a model for analysing and reducing uncertainty and formulating strategies e-SCM. Regarding empirical studies. Lancaster, Yen, and Ku (2006) provided an overview of e-SCM initiatives by focusing on technological and evolution drives of companies' readiness to move to the web, they provided a framework and analysis of online platform for firms in transportation sectors, automotive, financial services, retail and technology. In a related study, Sambasivan, Abidin, Mohamed, and Nandan (2009) developed: web-enabled service metric, data reliability metric, time and cost metric, invoice presentation and payment metric and e-document as measures for monitoring supply chain performance management. Ke, Liu, Wei, GU, and Chen (2006) studied the factors affecting firm's e-SCM adoption by integrating relational exchange theory, institutional theory, organisational culture and information system theory. Their study reveals that normative and coercive pressures lead firms to adopt e-SCM. Cagliano et al. (2015) proposed a systemic methodology to enhance the diffusion of smartphone based service enabling supply chain e-SCM.

In the context of SMEs, Chang and Tsia (2006) identified supporting capacity of system supplier, relative advantage, organisational scale, and fundamental construction of interior informational technology as the major critical factors of e-SCM adoption by SMEs. Furthermore, a survey conducted by Archer, Wang, and Kang (2008) on the adoption of e-SCM by SMEs in Canada found that the main barriers to the adoption of e-SCM are lack of knowledge, resistance to change and lack of perceived need. Dwivedi, Papazafeiropoulo, Ramdani, Kawalek, and Lorenzo (2009) empirically examined enterprise systems (ERP, SCM, e-Procurement) adoption by SMEs. The study concluded that, firms with greater perceived relative advantage, greater top management support, a larger size, greater organisational readiness are more likely to adopt enterprise systems including e-SCM.

Recent studies on internet adoption in SMEs in Africa (Awa et al., 2015; Guercini & Runfola, 2015; Iddris, 2012; Molla & Licker, 2005b; Uzoka, 2008; White et al., 2014) focused on e-Commerce adoption and neglecting the crucial role of e-SCM in SMEs operations. For example, the results of Awa et al. (2015) show that SMEs in Nigeria are yet to exploit the full potentials of e-commerce solutions. The inability of SMEs to utilize e-SCM technology leads to general question as to why SMEs fails to tap into business opportunities created by Internet technology in Sub-Saharan Africa. The literature reviewed above shows that e-SCM adoption was have been harnessed and deployed in advance economies. This means that adoption of e-SCM by SMEs in Sub-Saharan Africa is unexplored. Thus, this study will contribute to the existing literature on e-SCM adoption.

THEORETICAL DEVELOPMENT

Several studies have focused on identifying the main determinants influencing technology related product/services (Martin & Matlay, 2001; Thong, 1999; Venkatesh & Davis, 2000; Venkatesh, Morris, Davis, & Davis, 2003) these researchers investigated determinants of technology adoption of related products/services in different disciplines using variety of theoretical dimensions. The most widely used theoretical studies includes: The Theory of Planned Behaviour (TPB) (Ajzen, 1991; Ajzen & Fishbein, 2005; Mathieson, 1991; Taylor & Todd, 1995) Technology Acceptance Model (TAM) (Davis, Bagozzi, & Warshaw, 1989; Venkatesh & Davis, 1996) The Social Cognitive Theory (SCT) (Compeau, Higgins, & Huff, 1999;

Compeau & Higgins, 1995; Hill, Smith, & Mann, 1987) and Innovation Diffusion Theory (IDT) (Moore & Benbasat, 1991; Rogers, 1995; Rogers, 2003; Rogers, 1998) and Institutional theory.

INTEGRATION OF THE FOUR THEORETICAL MODELS

In this study we build upon the theoretical model proposed by Zhu et al. (2006), by integrating IDT,TOE, UET and institutional theory to propose an integrative conceptual framework (See fig. 1). The perceived characteristics are represented by (1) technology, organisation and environment in TOE model; (2) coercive pressure, normative pressure and mimetic pressure in Institutional theory; (3) age, education, group homogeneity, experience in UET. These factors are used as the independent variables that may negatively or positively influence technology dependent variables in the proposed theoretical model such as evaluation, adoption and routinisation in (fig 1).

Evaluation Stage: Evaluation stage is where a firm evaluates potential benefits provided by e-SCM. This is the stage where a firm evaluate decision as to whether to use e-SCM before actual adoption. According Zhu et al. (2006) assimilation of innovation starts from organisation's initial awareness and evaluation of the innovation (Rogers, 1995) argue that the initial stage "amounts both to identifying and priorotising needs and problems on one hand and searching the organisation's environment to locate innovations of potential usefulness to meet organisational challenges". The degree to which e-SCM fits the problem to be solved will greatly influence the decision to implement e-SCM systems for an organisation. In this study the evaluation model propounded by Zhu will be used. The measurement aims at improving firm's performance in value activities such as market expansion, cost reduction and supply chain coordination.

Adoption Stage: Adoption is the stage where an organisation finally decides to a use e-SCM, in this case financial resources need to be channelled into acquisition of the technology and related IT services for effective running of the new systems. Zhu et al. (2006) emphasis that adoption of new technology does not imply wide usage among acquiring firms. The technology can be adopted by the firm but workers may not use it due resistance to change or socio-political factors.

Routinisation Stage: Zhu et al. (2006) define routinisation "as the stage in which e-business is widely used as an integral part in a firm's value chain activities". Routinisation may be regarded as the final stage in which e-SCM is widely used as integral part of the organisations supply chain activities. In this instance, the innovation (e-SCM) has gone through evaluation and adoption stage and is finally installed in the organisation and is widely used in the organisation on constant basis to improve the entire business process of SMEs. The following model provides insight into e-SCM diffusion in a developing economy.

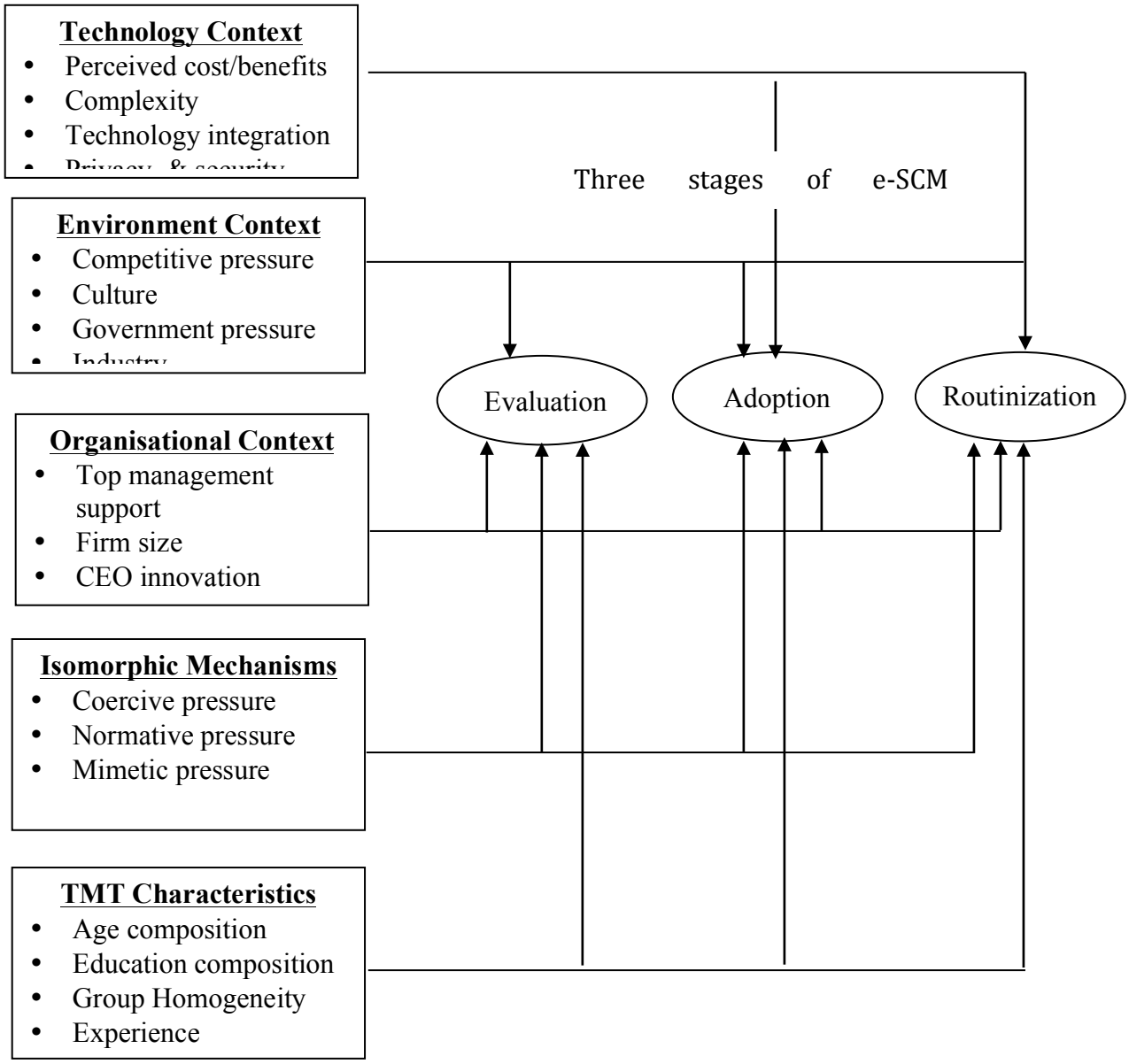

Figure I: Conceptual model for e-SCM diffusion by SMEs

In summary after reviewing management and innovation diffusion models and considering the distinctive characteristics of e-SCM, we proposed an integrated conceptual model (Figure 1) in which the three-stage assimilation is influenced by technology context, environment context organisational context and isomorphic mechanisms. As stated earlier the conceptual model in this study extend the work Zhu et al. (2006), by including UET which explains how the characteristics of top management influence innovation adoption. In the next section we develop a number of propositions, which will guide future empirical study of the insights advanced in this research.

PROPOSITIONS

Technological Context

Technological context consists of perceived cost/expected benefits, complexity, technology integration, and security and privacy. Perceived benefits are explained as sets of expected advantages accruing to an organisation as a result of innovation. The benefits can be direct or indirect (Chwelos, Benbasat, & Dexter, 2001). Direct benefits include cost reduction and improved operational efficiency. Opportunities created out of innovation utilisation such as customer services are some of the indirect benefits (Seyal & Rahman, 2007). Perceived cost

and benefits are carefully considered before an enterprise initiate innovation adoption process, in order to recoup return on investment.

Complexity refers to "the degree to which an innovation is perceived as difficult to understand and use" (Rogers, 2003). Some of the complexities might include: Resistance to change by employees, untrained employees, unfit technological strategy, procedures complexity may come about as a result of non-customised solutions and incompabitlity with existing information technology (IT) systems (Tsai et al, 2010).

Security and Privacy: Security refers to the policies, procedures and technical measures used to prevent and reduce the rate at which an organisation's information systems is subject to alteration, stealing, physical damage, unauthorised access Ken and Jane (2012). This leads to our first proposition:

P1. E-SCM diffusion can be influenced by technological factors, even though they might have greater effect on the evaluation and adoption stages.

Organisational factors

Organisational factors consist of four variables top management support, firm size, prior IT experience, and Chief Executive Officer Innovativeness. According to Rogers (2003), organisational size is one of the determinants of innovation adoption. Jeyaraj, Rottman, & Lacity (2006) argue that size of an organisation has long been at the centre of IT adoption and is considered to be an important predictor of IT adoption. Top management support and attitudes towards change have been found to influence technological innovation adoption (Daylami, Ryan, Olfman, & Shayo, 2005; Gupta, Dasgupta, & Gupta, 2008; Premkumar & Potter, 1995). Hence top management support is believed to influence ICT innovation adoption (Daylami et al., 2005; Wilson, Daniel, & Davies, 2008).

Innovativeness is the ability to open to new ideas and methods by which clients process information, take decisions and offer solutions to problems (Kirton, 2004; Marcati, Guido, & Peluso, 2008). The organisations receptiveness to better and new ways critically influence adoption of innovations in SMEs (Marcati et al., 2008). Commitment of CEO/Owner and their perception of ICT benefits appear to be crucial to the successful adoption of a new ICT in small enterprises. Roger explains further that user's adoption intention and behaviour can be influence by accumulated experiences using new innovations. Bandura (1997), intimates that there is relationship between users' prior knowledge and their understanding of a new situation or context. In the case of e-SCM adoption, familiarity with EDI, Intranet, extranet, computers, B2B portal can have a direct influence upon user perceptions regarding innovation diffusion in SCM. Previous research have found prior experience to influence technology adoption decisions (Chan & Chang, 2001; Forman & Lippert, 2005; Igbaria, Guimaraes, & Davis, 1995). This leads us to our second proposition:

P2: Technology context is likely to influence e-SCM evaluation, adoption and routinization, but its effect will be greater on adoption than routinization.

ENVIRONMENT FACTORS

The main sources of environmental factors are competitive pressure, trading partners, customers and government (Iacovou, Benbasat, & Dexter, 1995). Competitive pressure was found to positively and significantly influence adoption of e-commerce among SMEs in (Ghobakhloo, Arias-Aranda, & Benitez-Amado, 2011). Similarly, Jeyaraj et al. (2006) also

identified competitive pressure as one of the best factors that influence organisational adoption of information systems innovation. Das and Gupta (1999) found in their study that companies operating in an environmental contexts in which governmental policies are not open and supportive, have low IT adoption rate. Therefore, it is believed that governmental support can influence e-SCM diffusion in SMEs. A study by Minguzzi and Passaro (2001) indicated that culture is an internal factor, which includes the characteristics of human resources and the degree of receptiveness to new ideas and change in business practice. It is recognized that culture is an important variable in technology mediated learning. Saffu, DeBerry-Spence, Dadzie, Walker, and Hinson (2008) found in their study of e-Commerce adoption by SMEs in Ghana that adoption is influenced by cultural factors within an organisation. This leads us to our third proposition:

P3. Environmental context is likely to influence evaluation, adoption and routinization, but its effect will be greater on adoption than routinization

ISOMORPHIC MECHANISMS

Coercive pressure construct is derived from DiMaggio and Powell's (1983) mechanisms through which change occurs. DiMaggio and Powel's three categories have been adopted as theoretical foundation for number of SCM research that consider isomorphism (Ting et al, 2013), Coercive pressures are associated with informal or formal pressures. Informal pressures may emanate from "cultural expectations in the society within which organisations function (DiMaggio & Powel, 1983). Formal pressures may also arise from the need to satisfy government regulations, such as tax and accounting regulations and pollution control. Empirical evidence suggest that coercive pressures on organisation may stem from a variety of source including resources-dominant organisations, regulatory bodies, and parent corporations, and are built into exchange relationships (Salancik & Pfeffer, 1978). Regarding e-SCM adoption, Liu, Ke, Wei, Gu, and Chen (2010) stated that, in situations whereby a powerful channel member adopt e-SCM, the member may succumb its partners into adoption, failure to do that may negatively affect the established dependent relationships. In line with this argument, the dependent partner may accept the powerful partner's request to adopt e-SCM.

Mimetic pressures arises from uncertainty. DiMaggio and Powel (1983), argues that firms are likely to imitate others when they face uncertainty due to rapid technological change or market change. According to Fligstein, (1985); Goodstein, (1994) if similar organisations do things in a certain way that give rise to that particular course of action being legitimised or taken for granted throughout the sector others will follow to avoid the embarrassment of being perceived as less innovative or responsive. With regards to e-SCM adoption, more enterprises are likely to adopt the innovation in order not to be seen as technologically less advanced.

Normative pressures may arise from professionalism. DiMaggio and Powel (1983) described professionalism as "the collective struggle of members of an occupation to define the conditions and methods of their work and to establish a cognitive base and legitimisation for their occupational autonomy. They contended that organisational decision makers should turn to norms, standards and solutions that are institutionalised in their businesses and professional circles. The communality of professional practice in a given discipline creates and strengthens the related norms, which in turn, generate normative pressures on firms and compel them to adopt the common practice (John et al, 2001). This leads us to our fourth proposition:

P4. An isomorphic mechanism is likely to influence evaluation, adoption and routinization, but its effect will be greater on adoption than routinization.

UPPER ECHELON THEORY (UET)

According to UET, Young managers appears to be risk takers than older managers and they are open to new ways and ideas (Hambrick & Mason, 1984), therefore, old managers may avoid the temptation of introducing innovative technology in supply chain management activities. And that older managers are most likely to reject risky projects such as investment in information technology but rather protect well established social ties, retirement plans, and lifestyle.

Several authors have consistently argued that either the CEO or other central actors are positively related to receptivity to innovation. Hambrick and Mason (1984); Dwivedi, Papazafeiropoulo, Chuang, Nakatani, and Zhou (2009) empirically found that there is positive relationship between education composition of Top Management Team (TMT) and the extent of information technology adoption in SMEs, and that the more TMT receive education, they are more likely to come into contact with IT tools and their application in business. This leads to our fifth proposition:

P5. Top management characteristics is likely to influence evaluation, adoption and routinization, but its effect will be greater on adoption than routinization

CONCLUSION

The purpose of this study has been to develop firm level framework by integrating TOE model, IDT, UET, and institutional theory and to further investigate the effects of the factors at different stages of e-SCM diffusion of e-SCM by SMEs in Sub-Saharan Africa. The study highlights the fact that SMEs willingness to adopt e-SCM to enhance their business operations may be influenced by various technological, environmental, organisational and institutional factors. It is also argued in this paper that the ability of SMEs to adopt innovation is dependent upon how effective management evaluates the operational environment before the adoption. After the adoption, management may implement wide usage (routinization) of the e-SCM within the firm. The firm's adoption process of e-SCM will enhance SMEs' competitiveness in the face of a turbulent market environment where SMEs in LDCs are expected to compete on the same footing with their counterparts in advanced economies. A successful adoption of innovation (e-SCM), will however, be a function of how well the integration of the various important factors identified in this study are blended.

Some Implications

Management of SMEs from Sub-Saharan Africa will be required to adopt innovation in order to propel them to make inroads in local as well as the foreign market. The ability of SMEs to adopt e-SCM may depend on proper integration of standalone IT systems (computers, mobile phones, PDAs, internet, application softwares), with that of other network members in their supply chain leading to real-time sharing of information and other resources that the SMEs may lack. To avoid the tendency where customers regard products from SMEs in Sub-Saharan Africa as less innovative and less superior (Awuah & Amal, 2011). Hence, SMEs have to ensure evaluation, adoption and the usage of e-SCM among their network members through learning and collaboration in order to ensure smooth realignment and implementation of the new systems. Policy makers in Sub-Saharan Africa should encourage and provide support systems to assist the SMEs in their transition and adoption stage, since regulatory and economic factors has emerged as critical factor determining innovations assimilations (Zhu et al., 2006).

Suggestions for the Future Research

This study is primarily at conceptual level, and provided an integrated framework for e-SCM adoption. It will be important to conduct empirical research to increase our understanding of the extent to which SMEs in Sub-Saharan Africa may take advantage of the emerging e-SCM platform in order to match MNCs in advanced economies in an attempt to produce and deliver competitive product and services.

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Critical Success Factors In the Implementation of Strategy by the Multinational Corporations in the Pharmaceutical Industry: An Empirical Investigation

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Abstract

Strategy implementation is the key that opens doors to creatively align organizational strategy with its internal support systems that transforms analyzed and formulated strategies into action. An organization in the pharmaceutical business, which is a business that competes in the knowledge economy for discovering and commercializing therapeutic agents, must endeavour to continually develop strategies to protect its intellectual capital and improve performance. Despite this realisation the importance of strategy implementation, is still greatly overshadowed by a focus on the strategy formulation process. Literature available on strategy implementation is very scarce and especially in the pharmaceutical industry. This study, therefore, is poised to explore and determine the critical success factors for strategy implementation among Multinational corporations in the Kenyan pharmaceutical industry. The study was conducted in Kenya in 2014 as a census survey of twelve Multinational pharmaceutical corporations. Data for this survey was collected through the use of structured questionnaires, which were distributed to 36 respondents of which 32 responded an 89% respondent rate. This study was hinged on the dynamics capabilities theory, resource based view theory and the concept of competitive advantage. Data analysis was done using descriptive statistics and factor analysis to a large extent. Results indicate that critical success factors for strategy implementation include; Infrastructure factors; Clear and concise communication of the strategy to the staff, with a variance loading of(0.942)Resource set aside for new strategy,(0.871,variance loading),Planning, co-ordinating, monitoring and delegation of responsibilities for implementation of strategy,(0.970), Organisational structure that is supportive(0.889).Time frame; Specified time frame allocated for strategy implementation(0.971), allocation for obstacles surfaced during implementation that were not envisioned beforehand, environmental factors also emerged as key to this process. For competitive advantage. People-product mix; Possession of detailed knowledge on customers' needs, tastes and preferences by employees, hiring and retraining top talent within the organization, continuous product improvement and innovations, Production of unique products for a specific target market, partnering with customers to produce highly customized products and strategic alliances with key stakeholders in the industry. These factors had implication on theory and practice since they were found to be universal.

Key words: CFSs, Strategy, Implementation, Pharmaceutical, Industry, MNC, Kenya

BACKGROUND

Strategy is defined as the direction and scope of an organization over long term, which achieves advantage for the organization through its configuration of resources within a

changing environment to fulfil stakeholder expectation (Johnson and schools.2000). Michael Porter has defined strategy as "Creation of a unique and valued position involving a different set of activities. The company that is strategically positioned performs different activities from rivals or performs similar activities in different ways. An organization is considered efficient and operationally effective if it is characterized by coordination between objectives and strategies. There has to be integration of the parts into a complete structure. Strategy helps the organization to meet its uncertain situations with due diligence. Without strategy, an organization is like a ship without a rudder. It is like a tramp, which has no particular destination to go to.

Top and middle management of most organizations have had to grapple with ways of designing new and innovative strategies that will give their organizations a competitive edge to survive in their respective industries. To achieve success, a strategy must be translated into guidelines for daily activities for firm members, the strategy and firm must become one, that is, strategy must be reflected in the way the firm organizes its activities and in the firm's values, beliefs and tone (Pearce and Robinson, 1991).

Is has been reported that there is a very good understanding of the extent of strategic responses by the pharmaceutical companies in Nairobi to environmental changes (Khalif, 2012). The challenge however remains in the translation of these strategies into action plans that are actually implemented within their proposed time frame. The guiding principles in any strategic management process is the understanding of what changes are needed, how to implement and manage these changes, how to create a roadmap for sustaining improvements that lead to better performance (Morgan and Strong,2003).

To understand the critical success factors that contribute to successful strategy implementation, we must first gain an understanding of why strategies fail. There are mainly three reasons that lead to strategy failure that can be summarised as, company initiatives not aligned with the company strategy, Company processes not aligned with strategy and Employees and stakeholder failing to engage. For strategy to be implemented successfully every activity in an organization, apart from the very functional ones must be reviewed against its relevance to the new strategy being implemented. It bears no fruit to create a new strategy but continue to do the same old things.

A transformational strategy requires a transformation of the organizational structure. The structure of an organisation must allow strategy to cascade across and down the organisation in a way that meaningfully and efficiently delivers the strategy. Organisations that try and force a new strategy into an out-dated structure will find their strategy implementation eventually reaching a deadlock. One major reason why strategy execution fails is because the organisation does not get behind it. If staff and critical stakeholders in a particular organization do not understand the strategy and fail to engage, then the strategy has failed.

Strategy involves change: Change is difficult and human tendency is to resist it. So no matter how enlightened and inspiring your new strategic vision is, it will come up against hurdles and management must prepare the staff for these changes. An understanding of each of these hurdles and developing strategies to overcome them is critical. Strategic leaders must endeavour to bring on board influential employees, not just executive team members into the planning process. Not only will they contribute meaningfully to strategy, they will also be critical in ensuring the organisation engages with the strategy. Furthermore, listening across the organisation during strategy formulation is critical; some of the best ideas will come from within the organisation, not the executive team. An example would be 3M and its Post-It Notes.

Communication: Every staff member must understands the strategic vision, the strategic themes and what their role will be in delivering the strategic vision. Communication of the strategy must be enriched through a combination of presentations, workshops, meetings, newsletters, intranets and updates. Strategy and performance updates should be continued throughout the year. It is also prudent for strategic management to engage the staff emotionally in the vision, a vision that they will want to invest and engage with would be a vision they believe in.

It is critical that all employees are aware of expectations. How are they expected to change, what and how are they expected to deliver, each individual must understand their functions within the strategy, the expected outcomes and how they will be measured. Lastly Strategies must be adaptable and flexible so they can respond to changes in both internal and external environments of a company. Strategy meetings should be held regularly throughout the year, where initiatives and direction are fully reviewed to check them against changes in external and competitive environments as well as internal environment for performance and strategic relevance. For strategy to succeed the whole organisation must engage with it, live and breathe it. It is on this understanding that this paper explores the contextual perspective of the pharmaceutical multinational corporations in Kenya as the basis in which CSFs of strategy implementation is done.

The United Nations definition of a multinational corporation is "an enterprise which owns or controls production or service facilities outside the country in which it is based". Thus a multinational company carries on business operations in two or more countries. Its headquarters are located in one country (home country) but its activities are spread over in other countries (host countries).Kenya's rapidly growing pharmaceutical and consumer health market is estimated to be worth a whooping $160 million each year, with it's private health sector contributing approximately 13% to the GDP, this however, has largely remained unchanged since 1995(KPPB, 2007). Out of this, Pharmaceutical industries account for 10.3% in its contribution to the GDP. The growth rate is projected to reach 5.4 per cent this year (2014), up from 2.5 per cent recorded in 2009.

The Kenyan pharmaceutical industry consists of a host of players who include the research based multinational companies, local manufacturers mainly of generic medicines, importers of branded and non-branded generic medicines and counterfeits. There are a total of 42 companies listed as local manufacturers of which only one (GlaxoSmithKline) is a multinational company, 15 others are listed as institutional/facility based (UNIDO, 2010) and a further twelve as research-based multinational pharmaceutical (MNPCs) companies in Kenya, of these; seven have a regional offices in the country while five others have appointed agents. The remaining players in this market include distributors who also serve as agents of generic manufacturing companies.

Multinational pharmaceutical companies (MNPCs) rely heavily on the research and development model that is based on the innovation of novel treatments that, once patented and marketed successfully drive the company's large revenues and resultant growth through its parent company and subsequently its subsidiaries throughout the world. According to the Pharmaceutical Executive report, Exec top 50 which provides an annual ranking of the world's pharmaceutical companies based on their prescription drugs. Pfizer Laboratories retained its slot as the leading (MNPC) in terms of revenue based on the 2013 exchange rates. Other companies in the top ten positions include; Novartis, Merck, Sanofi Aventis, Hoffman le Roche, GlaxoSmithKline at sixth position, Astra Zeneca, Abbot and Eli-lily, (Pharmaceutical Executive,

2014 report based on 2013 revenues). It is important to note that these top ten MNPCs in the world also conduct marketing and sales activities in Kenya's neighbouring countries using Kenya as their regional base.

LITERATURE REVIEW

Strategy implementation or otherwise known as strategy execution is easily the most complicated and time-consuming part of strategic management (Thompson & Strickland, 2003). In contrast, strategy formulation is primarily an intellectual, creative act involving analysis and synthesis. Implementation on the other hand is a hands-on operation and action-oriented human behavioural activity that call for executive leadership and key managerial skills. Strategy implementing functions consist of finding out what it will take to make the strategy work and to reach the targeted performance on schedule. It is action driven administrative task that cuts across many internal functions of an organization. (Thompson and Strickland, 1999). Once strategies have been developed, they need to be implemented. Unless they are successfully implemented an organisation cannot obtain desired results. Pearce and Robinson (2002).

Barriers to strategy implementation have been identified as; competing activities that destruct attention from implementing the decision; changes in employees responsibilities not clearly defined; key formulator of the strategic decision not playing an active role in implementation, problems requiring top management involvement not being communicated early enough, overall goals not sufficiently defined, and understood by employees; uncontrollable factors in the external environment, surfacing of major problems not identified during formulation, advocates and supporters of the strategic decisions leaving the organization during implementation and implementation taking more time than earlier allocated. Al-Ghamdi (1998).

Many researchers have discussed the metrics coherent with strategy formulation and implementation principles. One of the most mentioned concepts is the balanced scorecard by Kaplan and Norton in the 1990s.This concept proposes that every firm should adopt a specific set of key performance indicators. These indicators measure whether driving activities led to the expected results. Performance indicators must follow critical implementation factors what include: 1. Measuring necessary time for strategy execution, 2. Organizational structure adequacy, 3. Organizational culture, 4. Resource planning and 5. Strategic Leadership.

Organizations must ensure that every strategy-related action has a due date. This can be achieved by building into the strategic plan, milestones that must be achieved within a specific time frame. Alternatively, organizations may opt to schedule sixty-day strategy reviews by senior management. These will provide an opportunity to take another look at the original plan, determine whether strategic objectives are being met, and agree on new action steps as necessary. Managers may let the due date slip, but should not let it go away. This will hold each and every stake holder accountable for the deadline of their actions in strategy execution.

A transformational strategy requires a transformation of the organizational structure. The structure of an organisation must allow strategy to cascade across and down the organisation in a way that meaningfully and efficiently delivers the strategy. Organisations that try and force a new strategy into an out-dated structure will find their strategy implementation eventually reaching a deadlock.

Weihrich and Koontz (1993) look at culture as the general pattern of behaviour, share beliefs and values that members have in common. Culture can be inferred from what people do and

think within an organization setting. It involves the learning and transmitting of knowledge, belief and patterns of behaviour over time. This implies that organizational culture sets the tone for the company to establish rules on how people should behave and in essence how successfully strategy will be implemented. A strategy-supportive corporate culture enhances the ease in execution of strategy; it promotes an environment where employees are encouraged to work hard toward the accomplishment of the strategy.

Organisational performance should also be closely aligned to strategy. Performance measures should be placed against strategic goals across the organisation and each division and staff member. All staff will therefore have job functions that will impact on strategy. Strategic management must ensure employees are aware of their role and influence on strategy delivery and performance. Norton and Kaplan in their book 'The Execution Premium' recommend cross functional strategic initiatives be allocated specific budget alongside capital and operating budgets. This protects strategic expenditure from being re-allocated to short-term requirements of operating budgets whilst subjecting strategic initiatives to a rigorous review.

Strategy involves change. Change is difficult and human tendency is to resist it. So no matter how enlightened and inspiring the new strategic vision maybe, it will come up against hurdles and management must prepare the staff for these changes. Tipping Point Leadership theory outlines four key hurdles that executives must overcome to achieve execution. Those hurdles are cognitive, resource, motivation and political hurdles. An understanding of each of these hurdles and developing strategies to overcome them is critical. Strategic leaders must endeavour to bring on board influential employees, not just executive team members into the planning process. Not only will they contribute meaningfully to strategy, they will also be critical in ensuring the organisation engages with the strategy and ensure its successful implementation.

For factors external to the organization affecting strategy implementation, it is important to set up a detailed assessment of their occurrence and impact. It is also important to apply quantitative and qualitative indicators.The factors above may not be exhaustive as critical success factors in strategy implementation may be case dependent, but as companies look for ways to implement corporate-level strategies, this offers a checklist for the process.

METHODS AND RESULTS

Methods

A Census survey was employed in this study to gain insights on how strategy is currently implemented among the top Multinational Pharmaceutical Corporations in Kenya. This survey helped to determine what management of these organizations consider as the critical success factors for implementation of their strategies.

This offered convenience of administration and therefore favours capturing all the relevant data to enable comparison of the critical factors in strategy implementation for the Multinational pharmaceutical Corporations in Kenya. A census study enhances wide representation of the current state and a definite answer to the research questions (Mugenda & Mugenda 2003).

The top twelve multinational pharmaceutical companies based on 2013 global revenue that have subsidiaries/regional offices in Kenya constituted the population of the study under which the findings of this study was based. These corporations form the top Multinational Pharmaceutical companies in the world, according to The Pharma exec's Report, on the top

twelve Multinational companies based on 2013 Global Revenue. This provides a good representation of the study subject to help fill the research gaps.

The population of the study presents a manageable and accessible population since these corporations are all headquartered in Nairobi where the study was conducted. A population is a well-defined or set of people, services, elements, and events, group of things or households that are being investigated. (Ngechu, 2004).

Data was collected through the use of a structured questionnaire. The questionnaires contained close ended questions and were administered through a drop and pick later method. The respondents were; Chief Executive officers or their equivalents, Business development Managers, Product Mangers and Sales Managers responsible for strategy implementation in the Multinational Pharmaceutical companies under study.

The data collected was then analysed using the, descriptive statistics involving use of mean, mode and median Factor analysis was also employed in this study in description of the wide variety of variables, using a few factors. This helped to analyze the aspects of independent variables which may have been correlated with the dependent variables; it was also used to reduce many factors into a manageable number-for ease of data presentation and interpretation

Results

Data collected from the 32 questionnaires presented a host of factors that are critical to each individual organization for strategy implementation. Before extraction, there were as many factors as the number of variables in the data, as expressed in the tables to follow. Factor analysis was used to identify the major components that are critical for strategy implementation. From factor analysis various parameters were used to reduce the data to a manageable size. These parameters included: Eigen values, percentage variances, Extraction Sums of Squared Loadings and Rotation Sums of Squared Loadings, these are all expressed in the rotation matrix tables from each section of the questionnaire.

Table 1 Rotation matrix for critical success factor for strategy implementation

Component	Initial Eigenvalue			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.551	50.570	50.570	4.551	50.570	50.570	3.616	40.172	40.172
2	1.660	18.446	69.017	1.660	18.446	69.017	1.173	13.037	53.210
3	1.068	11.863	80.880	1.068	11.863	80.880	1.091	12.123	65.333
4	.900	10.004	90.884	.900	10.004	90.884	1.069	11.875	77.208
5	.334	3.707	94.590	.334	3.707	94.590	.875	9.718	86.925
6	.223	2.476	97.067	.223	2.476	97.067	.864	9.596	96.522
7	.169	1.879	98.946	.169	1.879	98.946	.193	2.143	98.664
8	.090	1.001	99.947	.090	1.001	99.947	.115	1.281	99.945
9	.005	.053	100.000	.005	.053	100.000	.005	.055	100.000

Table 2 show the factor loading values after rotation. Rotation has the effect of optimizing the factor structure and one consequence for these data is that the relative importance of two factors is equalized. Loadings highlighted in bold correlate and load onto one component.

In this case Component one represents: Clear and concise communication of the strategy to the staff, Resources set aside for new strategy, Planning, co-ordinating, monitoring and delegation of responsibilities for implementation of strategy and Organisational structure that is supportive. Second component; Obstacles surfaced during implementation that were not envisioned before hand and Third component; specified time frame allocated for strategy implementation.

Table 2: Loading values for critical success factors for strategy Implementation.

	Components								
	1	2	3	4	5	6	7	8	9
Specified time frame allocated for strategy implementation	.157	.002	**.971**	.018	-.123	.131	.003	.009	.001
Obstacles surfaced during implementation that were not envisioned before hand	.165	**.924**	.021	.030	.306	.156	.000	.001	.000
Clear and concise communication of the strategy to the staff	**.942**	.168	.207	.011	.068	.127	-.109	-.081	.053
Resource set aside for new strategy	**.871**	.036	.140	.114	.013	.324	.027	.320	.000
Planning, co-ordinating, monitoring and delegation of responsibilities for implementation of strategy	**.970**	.147	.017	.046	.106	.098	-.079	-.075	-.046
Focus and accountability on new strategy by entire organisation	.401	.249	.223	.241	.172	.800	.022	.016	.000
Organisational structure was that is supportive	**.889**	.027	.035	.117	.076	.120	.416	.015	.000
Senior management being at the forefront in providing leadership to enable a successful strategy implementation	.089	.034	.017	.983	.079	.134	.015	.008	.000
Strategy formulators having active roles in strategy implementation	.133	.453	-.186	.120	.842	.141	.013	.000	.000

The first three Initial Eigen values before extraction were the highest as illustrated in table 3 below.

The percentage of variance column illustrates the total variance accounted for by the individual factors where as the cumulative percentage of variance shows total variance accounted for by current and all preceding factor variances totalling up to 100%.The extraction sums of squared loadings column correspond to the number of factors retained for extraction

this analysis pre- set three factors for analysis and those are the first three in this column. Finally the rotation sums of square loadings illustrates the distribution of the variance among the factors after rotation, the total amount of variance accounted for is redistributed over the extracted factors.

Table 3: Eigen values for factors with high correlations in Localising Global Strategies

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.143	30.612	30.612	2.143	30.612	30.612	1.005	14.363	14.363
2	1.368	19.549	50.161	1.368	19.549	50.161	1.005	14.360	28.723
3	1.083	15.469	65.629	1.083	15.469	65.629	1.005	14.351	43.074
4	.860	12.279	77.909	.860	12.279	77.909	1.000	14.284	57.358
5	.623	8.894	86.803	.623	8.894	86.803	.997	14.240	71.598
6	.487	6.961	93.764	.487	6.961	93.764	.996	14.229	85.827
7	.437	6.236	100.000	.437	6.236	100.000	.992	14.173	100.000

After the initial eigen values, the content of questions were then loaded onto the same components to try to identify common themes (see table below)there is one variable for each of the factors 1, 2 and factor 3 highlighted in bold).This clearly illustrates the main factors involved in localising global strategies to suit local challenges and opportunities to strategy implementation; Modify global strategy to suit local environment, with a loading of (0.972),Proactively seek good relationship with the government(0.984) and Local training to enhance technological competence with a factor loading after extraction of(0.981) as demonstrated in table 4 below.

Table 4: Extraction of critical success factors in localising global strategies

Variables	Component						
	1	2	3	4	5	6	7
Modify global strategy to suit local environment	**.972**	.043	.073	-.085	-.039	.095	.172
Harmonize accounting practices to reduce financial risks	.183	.141	-.026	.107	.134	.093	.953
Merge East Africa markets to enlarge market	-.041	.060	-.011	.244	.948	.133	.134
Proactively seek good relationship with the government	.042	**.984**	-.067	.035	.054	.072	.129
Develop differentiated distribution channels across East Africa markets	-.089	.038	-.063	.952	.241	.105	.106
Working together with Kenyan government for infrastructure development	.099	.077	-.168	.104	.130	.959	.092
Local training to enhance technological competence	.072	-.068	**.981**	-.057	-.011	-.157	-.024

Factor analysis on data collected for response strategies for competitive advantage, revealed three high initial Eigen values as shown in table 13 below. These three components had an

Eigen value of more that 1.0.This showed that these factors had some variations that were thereafter used to extract some common themes. The table below gives a comprehensive overview of the percentage variance, extraction sums of squared loadings and cumulative percentages for factors that respondents indicated as response strategies for competitive advantage.

Table 5: Extraction of factors for response strategies for competitive Advantage

Compl	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.896	43.287	43.287	3.896	43.287	43.287	2.643	29.371	29.371
2	1.547	17.186	60.473	1.547	17.186	60.473	1.065	11.833	41.205
3	1.487	16.519	76.992	1.487	16.519	76.992	1.050	11.667	52.872
4	.650	7.221	84.213	.650	7.221	84.213	1.049	11.660	64.532
5	.530	5.884	90.097	.530	5.884	90.097	1.036	11.515	76.047
6	.392	4.357	94.455	.392	4.357	94.455	1.024	11.374	87.421
7	.260	2.894	97.349	.260	2.894	97.349	.546	6.071	93.493
8	.178	1.976	99.325	.178	1.976	99.325	.518	5.754	99.247
9	.061	.675	100.000	.061	.675	100.000	.068	.753	100.000

Table 6: Critical factors in response strategies for competitive advantage

Variables	Components								
	1	2	3	4	5	6	7	8	9
Production of standardized products at very low costs for price sensitivity	.122	-.030	-.014	.958	.181	.171	-.062	.012	.003
Reduction of operating expenses to maximize on revenues	.177	-.155	.016	.172	-.016	.955	.025	.051	.000
Strategic alliances with other key stakeholders in the industry	.356	.092	**.921**	-.017	.017	.012	.088	.087	.002
Possession of detailed knowledge on customers' needs, tastes and preferences by our employees	**.890**	.136	.181	.200	-.067	.123	.180	.162	.194
Hiring and retraining top talent	**.911**	-.002	.304	.068	-.073	.160	.074	.079	-.174
Partnering with customers to produce highly customized products	.115	**.956**	.082	-.031	.173	-.158	.037	.097	.005
Continuous product improvement and innovations	**.642**	.078	.180	-.150	-.195	.049	.689	.109	.004
Selling of products at lower prices than competitors	-.124	.171	.012	.181	.956	-.016	-.084	-.046	.000
Production of unique products for a specific target market	**.638**	.253	.190	.027	-.108	.120	.116	.672	.004

This data was then collated to show which specific factors show common themes and answer the research objective of what the critical success factors for strategy implementation among Multinational pharmaceutical cooporation are. Table 7 below clearly enlist the most critical

success factors for strategy implementation in totality taking into account all the aspects of; localising global strategies and response strategies for competitive advantage according to data collected from the entire population of respondents.

Table 7: Ranking for components in Critical success factors for strategy Implementation

	Components	Initial eigen values	Variance factor Loading
Implementation of strategy	Clear and concise communication of the strategy to the staff	**4.551**	**0.942**
	Resource set aside for new strategy		**0.871**
	Planning, co-ordinating, monitoring and delegation of responsibilities for implementation of strategy		**0.970**
	Organisational structure was that is supportive		**0.889**
			0.971
	Specified time frame allocated for strategy implementation	**1.660**	
	Obstacles surfaced during implementation that were not envisioned before hand	**1.068**	**0.924**
	Modify global strategy to suit local environment	**2.143**	**0.927**
Localising Global Strategies	Proactively seek good relationship with the government	**1.368**	**0.984**
	Local training to enhance technological competence	**1.083**	**0.981**
	Possession of detailed knowledge on customers' needs, tastes and preferences by employees	**3.896**	**0.890**
Response strategies for competitive Advantage	Hiring and retraining top talent		**0.911**
	Continuous product improvement and innovations		**0.642**
	Production of unique products for a specific target market		**0.638**
	Partnering with customers to produce highly customized products		**0.956**
	Strategic alliances with other key stakeholders in the industry	**1.547**	**0.921**
		1.487	

In summary ,it is evidenced by the data collected that the critical success factors for strategy implementation for Multinational pharmaceutical corporations in the Kenyan Pharmaceutical

industry include and are limited to Management of these organization ensuring that there is a very Clear and concise communication of the strategy to the staff this factor had a factor loading of (0.942) and is highly correlated to Resources set aside for new strategies (0.871).These two very important factors are also closely correlated to Planning, co-ordinating, monitoring and delegation of responsibilities for implementation of strategy (0.970) and Organisational structure was that is supportive (0.889).These factors all load onto one component. These four factors a high correlation to one another and can therefore form one "invisible" factor and through factor analysis have been reduced to one overall factor (component) to answer in part the research objective of critical success factors to strategy implementation.

The second component that emerged as critical was Specified time frame allocated for strategy implementation with a loading of (0.971). Timelines are therefore very critical when it comes to successful strategy implementation. The third component with a loading of (0.924) after factor extraction was consideration of Obstacles that may surface during implementation that had not envisioned beforehand.

A large number of the Multinational corporations operating in the Kenyan Pharmaceutical industry indicate from the responses that they have had to localise their global strategies for successful implementation. In this respect localisation of global strategy was mainly through modification of global strategy to suit local environment, with a loading of (0.927), as the first key component. Multinational Pharmaceutical corporations proactively seeking good relationship with the government (0.984) as the second component and Local training to enhance technological competence (0.981) as the third component. Analysis was able to show the factors that were highly correlated and highlight them as the key themes in line with the research objective.

These organizations have all put in place response strategies to maintain competitive advantage and factor analysis was able to identify the major components as; Possession of detailed knowledge on customers' needs, tastes and preferences by their employees, hiring and retraining top talent, continuous product improvement and innovations and production of unique products for a specific target market which loaded onto one component. Partnering with customers to produce highly customized products was identified as a second component and Strategic alliances with other key stakeholders in the industry as the third.

DISCUSSION

It is evident that after a thorough analysis of this data, nine distinct factors emerge as the most important when it comes to strategy implementation among Multinational Pharmaceutical corporations operating in the Kenyan industry from the huge amount of factors collated from this research as critical success factors to strategy implementation. One group of factors was; Clear and concise communication of strategy to staff. The role of managers in an organization is significant for effective people management and effective communication towards effective strategy implementation (Aaltonen and Ikavalko 2002).Resources set aside for strategy implementation, Planning, co-ordinating, monitoring and delegation of responsibilities for implementation of strategy and Organisational structure that is supportive. These factors can then be given one general title or name as they load onto one component showing that they form one theme and labelled as; Infrastructural issues in relation to this study.

Another distinct factor critical for strategy implementation success that has been demonstrated is Allowance for un-envisioned obstacles; putting into consideration Obstacles

that may surface during implementation that were not necessarily envisioned beforehand. Successful implementation in part involves preventing implementation problems from occurring in the first place (Alexander, 1985).Affirms this point.Time frame; specified time frame allocated for strategy implementation was also demonstrated from data to be critical in pursuit for strategy implementation success.

Multinational organizations operating outside their home countries have had to consider, global strategy modification for competitive advantage, data suggest that MNC's operating in Kenyan pharmaceutical industry have at one point or another modified their global strategies to adapt to their local environments, this has been demonstrated by the fact that this factor accounted for 14% correlation after extraction by factor analysis showing significance by loading highly onto one component.

Multinational Pharmaceutical corporations have also had to proactively seek good relationship with the local government in implementation of their strategies; this has been demonstrated to be a factor critical for implementation of strategies among companies in the pharmaceutical industry. Another factor of importance is Training; Local training of staff operating in these environments will enhance their technological competence for competitive advantage.

The pharmaceutical environment is a very competitive one, 97%of the population of respondents indicated that Multinational pharmaceutical corporations consider competition a significant factor to consider when looking at ways to attain a competitive edge in the industry. MNPC's in the Kenyan pharmaceutical industry have taken deliberate measures to remain competitive in their industry, which include; People-product mix, that involve the organizations ensuring that their employees posses detailed knowledge of customers' needs, tastes and preferences, Hiring and retraining top talent and Production of unique products for specific target markets.

Data from this survey has also shown that Strategic alliances with key stakeholders in the industry is key to attaining competitive advantage e.g. the strategic alliance between GSK and Dr Reddys pharmaceuticals from India, where Gsk has rights to market some of Dr Reddy's generic products.

CONCLUSION

Based on the results of the descriptive and factor analysis, it can be concluded that the target respondents from the participating organizations constitute comprehensive representation that allows for drawing of specific and concise conclusions on strategy implementation in the pharmaceutical industry and especially among Multinational Pharmaceutical companies. Due to globalization and increasing competition from manufacturers of generic drugs in the pharmaceuticals industry Multinational pharmaceutical cooperation operating in the Kenyan market have had to relook their strategies and how they are implemented.

The data presented in this research study indicate that critical success factors for strategy implementation such as infrastructure issues that include; resources being set aside for strategies, management being at the forefront in communicating the new strategy and supportive organizational are some of the bare minimum requirements for successful strategy implementation. These issues must therefore be implemented in organizations not only in the pharmaceutical industry but any organizations that harbour any intentions of being successful in its industry.

Management of multinational Pharmaceutical corporations organizations must endeavour to put in place suitable formulas for hiring and retaining top talent for example offering attractive compensation packages that would allow employee motivation, and revolution of human resource departments through embracing of policies that would enable individual employee's growth and development as well comprehensive localised training for their staff, suited for their specific and unique environment, would serve to enhance staff competence and in turn enhance their retention in these organizations.

(Nyaboke,2012) in her study that looked at sustainable competitive advantage among MNC's in the pharmaceutical industry, confirms this in her conclusion that possession of superior skills and especially recruiting the best talent in the market and training would propel an organization to achieve competitive advantage. Galbraith (1987) presents keen perspective to explain that an organizational capability is created when people, structure, rewards, and processes are created and combined to support task performance, and that the company must put into place organizational structures, management process, rewards, and incentives, and the human resource practices that support the task performance. The Galbraith (1994) Star Model of organizational capability does address essential requirements for defining and creating a supportive system for task performance.

Possession of detailed knowledge on customers' needs, tastes and preferences by employees, Continuous product improvement and innovations and Production of unique products for a specific target market are key strategies for competitive advantage. These factors confirm the dynamics capabilities theory that a firm has ability to renew its internal resources in line with changes in its environment for its own advantage. Turbulent environments may change the significance of resources for organization (Penrose 1959).

Taking environmental factors into consideration for example, inflation rates that affect consumption of products, Since change has become an enduring feature of organizational life (Rose and Lawtone, 1999), today's managers have to face the challenges posed by the environment hence embrace the ensuing strategic responses.

Strategic alliances with other key stakeholders in the industry as suggested in by the data in this research study, will help these MNPC's to better implement their strategies for greater revenue generation and profit maximization.(Chesbrough,2006) in his study of the pharmaceutical companies concluded that those companies that are unable to sufficiently undertake development within their organizations, align themselves to exploit the knowledge of other firms to get ahead. This is clearly demonstrated in the Kenyan pharmaceutical industry through their strategic alliances, examples are Glaxo smithkline and Dr Reddy's, Norvatis and Sandoz pharmaceuticals.

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Perceptions on Communication, Teamwork and Stress among Nurses in Long-term Care

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Abstract

The goals of this study were to identify how long-term care nursing employees perceive communication, teamwork and stress in their work environment and examine the relationships among these concepts. Data from long-term care nursing employees (RNs and LPNs) on their perceptions of receiving information and being asked for their input, giving help to others and receiving help in doing their jobs, as well as their perception of the level of stress in their jobs were collected through an online survey. Analysis provides an assessment of associations between nursing employees' demographic characteristics and their beliefs. Significant results from the Kendall's tau-b correlation analysis of the study variables include a negative relationship between increased stress and being told what they needed to know and being asked for their input (the communications factor) when higher values of stress were removed from the sample.

Key Words: Communication, Teamwork, Stress, Long-term care, Nursing

INTRODUCTION

With the aging of the population, long-term care is a significant and growing segment of health care delivery in the United States (Harris-Kojetin, Sengupta, Park-Lee, & Valverde. 2013). However, increases in reimbursement have not matched increased demands for care, placing long-term care nursing staff and managers at an increased risk for stress-related burnout as staffing lags with increasing care needs (Fuqua, 2012).

When workers and leaders in long-term care are asked about their work, it is common to hear that better communications and more teamwork would lower stress and lead to a better working environment.

PURPOSE

This paper explores the opinions of long-term care workers who have nursing responsibilities regarding how they feel about major elements of communication, perspectives on teamwork, and stress in their jobs. Communication includes sending and receiving messages while teamwork typically includes helping others and being helped by others.

REVIEW OF THE LITERATURE

Fuqua (2012) surveyed administrative employees in skilled nursing facilities. On two measures of communication, he found that almost half were asked for their input on the job and over 71% said they were often told what they needed to know to do their work. Almost 89% of the respondents in this study said that they very often helped others do their jobs, while only 38% said they were very often helped by others in doing their jobs. More than 68% of those responding said they somewhat often or very often experienced excessive stress in their jobs.

According to Stefl (2008), today's health care executives and leaders must have talent sophisticated enough to match the increased complexity of the health care environment. She reports the number one competency is communication and relationship management. Garman, Fritz, & Fraser (2006) state that the competency of communication and relationship management leverages professionalism and allows health care leaders to develop, cultivate and maintain effective working relationships.

Firth-Cozens (2001) addresses teamwork when she describes organizations as a dynamic balance between the authority and autonomy of the individual, the control that exists in formal structures, and the cooperation that takes place within and between teams. Erikson, Tambs, & Knardahl (2006) studied psychological distress among nurses' aides, finding that nurses' aides, the main providers of practical patient care in many countries, do both emotional and heavy physical work, and are exposed to frequent social encounters in their job. Tournageau, Cranley, Laschinger & Pachis (2010) surveyed nursing and other staff in long-term care facilities in Ontario to examine the relationships among leadership practices, work environments, staff communication and the outcomes of job satisfaction and turnover intention. They concluded that stronger work group relationships, a stronger sense of personal accomplishment and lower emotional exhaustion have direct effects on increasing job satisfaction and lowering turnover intention.

According to Shirey (2006), implementation of authentic leadership can affect not only the nursing workforce and the profession but the healthcare delivery system and society as a whole. Creating a healthy work environment for nursing practice is crucial to maintaining an adequate nursing workforce as the stressful nature of the profession often leads to burnout, disability, and high absenteeism and, ultimately, contributes to the escalating shortage of nurses. Leaders play a pivotal role in retention of nurses by shaping the healthcare practice environment to produce quality outcomes for staff nurses and patients. Few guidelines are available, however, for creating and sustaining the critical elements of a healthy work environment. This study was undertaken to explore the relationships between communication, teamwork, and work related stress in the long term care work setting.

DESIGN, DATA, AND METHODS

An online survey, using a commercially available software application, was made available to all nursing employees in 52 skilled nursing centers. Based on IP addresses, 23 centers participated in the study. Participation was anonymous and voluntary. The survey was designed to assess employees' perceptions of aspects of teamwork and communication. All perception variables were measured using a four-point Likert-type scale. Two variables were

used to measure perception of teamwork: how often the respondent helped others and how often the respondent was helped. Two variables were used to measure communication: how often the respondent's opinion was asked and how often the respondent was told what he/she needed to know, a measure of the sufficiency of communication. One question was asked to measure perceived frequency of excessive stress. Additional questions gathered information on level of education, type of nursing position, length of time worked in long-term care, race, and gender. Three additional variables were created as summated scores. The first was a "communications score" produced by adding the scores of the two communications questions (Questions 6 and 7). The range of the "communications score" is 2 to 8. The second score, with the same final range, was a "help score" produced by adding scores on Questions 8 and 9. The final variable was a "team combined score" created by adding the communications and help scores which thus has a possible range of 4 to 16.

For the correlation analysis, the variable gender was dropped due to only two males participating in the study, but both observations were retained in the analysis. The nominal variable of "minority status" (Question 5) was converted to a dichotomous variable with "white" equal to 1 and all other categories combined to an "other" equal to 0. The job category is also dichotomous, with LPNs=6 and RNs=7. All other variables were ordinal with the lower levels equated with lower scale values as follow: For the two communications questions (Table 2), "never=1" and "often=4," and for the "help" and "excessive stress" questions (Tables 3 and 4), "never=1" and "very often=4."

All analyses were conducted using IBM SPSS Statistics version 20.0. Kendall's tau-b correlations were calculated because of the use of ordinal variables and the prevalence of many ties in the rankings (Lewis-Beck, 1995). Kendall's tau-b ranges from -1.0 to 1.0 when each of the correlated variables has the same number of categories, but not when they differ. Significance and directionality are the foci when the number of categories differs across the pair (i.e., job with two categories and excessive stress with four).

FINDINGS

The average nursing center within this system employs approximately 5 RNs and 13 LPNs. Therefore, within the 23 centers participating, there are an estimated 414 nursing staff members. Specifically, it is estimated that overall 115 RNs and 299 LPNs work in these 23 centers. Included in the final sample of 80 are 51 RNs (63.7%) and 29 LPNs (36.3%). Therefore, the estimated response rate for the survey of participating centers was 19.3%. The specific questions and their related descriptive statistics are found in Tables 1-4.

Descriptive statistics for the sample indicate over 56% had more than ten years of employment service, over 73% had a college degree, 75% were white, and 78 out of 80 were female with one male RN and LPN each. More than 66% responded that they were often asked for their input on the job and only 8% said it was never or not enough. Over 78% indicated that they were often told what they needed to know to do their work while just over 1% said they were not told what they needed to know. While 85% of the respondents said that they very often helped others do their jobs, only 51% said they were very often helped by another in doing their jobs. More than 81% of those responding said they somewhat or very often experienced excessive stress in their jobs.

Table 5 contains the results of the correlation analysis of the original survey questions, minus the previously discussed gender variable. Fourteen statistically significant correlations are identified.

LPNs participating in the study worked more years in long-term care than the participating RNs (r=-0.172, p<0.10), corresponding with the negative relationship between years of education and years in long-term care (r=-0.235, p<0.05). As would be expected, RNs reported more years of education than LPNs (r=0.526, p<0.05). There are more white RNs and more non-white LPNs in the study (r=0.186, p<0.10).

Minority status is also positively correlated with opinion being asked by leaders (r=0.212, p<0.10), sufficient communications from leaders (told what he/she needed to know) (r=0.333, p<0.05), and excess stress (r=0.210, p<0.10). The strongest statistically significant positive correlation among the non-demographic variables is found between the two variables measuring communication: being told what he/she needed to know and being asked for his/her opinion (r=0.470, p< 0.01). The variables of being helped by others and helping others are also positively correlated (r= 0.317, p< 0.01).

Positive, statistically significant associations exist between how often individuals helped others and three other variables: years of education (r=0.210, p< 0.05), how often they were asked their opinion by leaders (r=0.215, p< 0.05), and how often they were told what they needed to know to do their work (r= 0.378, p< 0.01). Being helped by others is also positively associated with being asked their opinion by leaders (r=0.319, p<0.01) and being told what they needed to know (r=0.234, p<0.05).

The results of creating a communication score, help score, and a team combined score are reported in Table 6. Over 61% reported the highest possible communication score of 8 while 50% of the participants reported the highest help score. When these two scores were added to create a team combined score, 38.8% of the participants reported the highest score (16) with no one obtaining a score lower than 10. Table 7 contains the correlations of these three new variables with excessive stress (Question 10, Table 4). The correlation between the help score and communication score is statistically significant and positive (r=0.347, p<0.01).

Respondents in this study are pooled from 23 facilities. Other factors beyond those measured in this study (teamwork and communication) are related to stress in the work environment. If the amount of stress associated with a facility is excessive, then one should consider the potential of this environment nullifying any measurable positive impact of helping, communications, and teamwork. In order to mitigate the effect of other potential stressful factors in the work environment that may be overwhelming the positive aspects of teamwork and communication, the 35 respondents to the survey who reported feeling excessive stress "very often" were dropped from this final analysis. The correlations reported in Table 8 are of the remaining 45 respondents (see last three rows of Table 4). With this sample, increases in both the communications (r=-0.378, p<0.01) and the team (r=-0.329, p<0.05) scores were significantly associated with a decrease in excessive stress.

PRACTICAL APPLICATIONS

Providing long-term care is demanding work. The high dependency level of patients in the long-term care setting creates high demands on staff. This research indicates that social factors may have an association with nursing staff perceptions of how well they are able to perform their jobs. The interrelatedness of being helped by others in a teamwork fashion that benefits the one receiving help, along with both aspects of communication, sending messages to others and receiving information needed to do the job, correlate with a lower perception of excessive stress in the work. Another potential benefit of these positive aspects of the work environment, better teamwork and better two-way communication, may be increased length of service in the field of long-term care.

ADMINISTRATION IN LONG-TERM CARE

Nurses in long-term care constantly face challenges to better communicate, to work as a team, and to manage stress reduction for themselves and their teams. Developing positive, two-way communication is important in the pursuit of a teamwork-oriented staff. The more nursing staff feel that they are asked for their input in doing their jobs and are told what they need to know to do their jobs, the more likely nurses will be inclined to help others to do their jobs as well as receive help from others. When these qualities of work are realized, less excessive stress may be felt in the work environment.

ORIGINALITY, VALUE AND CONTRIBUTION

Long-term care nurses are responsible for the quality of health care their teams deliver to their patients. It has long been understood that the more satisfied the long-term care workforce, the higher the quality of care that is delivered to the patients. It is also widely recognized that some of the most commonly cited reasons for lower employee satisfaction are poor communication, low levels of teamwork and high levels of stress. This research supports the ideas that better communication, both in sending and receiving information, as well as higher levels of teamwork contribute to a reduced level of stress, at least in what was seen as excessive stress. It has been suggested that healthcare management programs develop educational outcomes related to competencies in the domain of teamwork and communication skills (Leggat, 2007). The results of this study suggest significant benefits of health care management education programs emphasizing effective communications and team building in order to reduce employee stress.

TABLES

Table 1: Demographic Questions: Responses of Participating RNs and LPNs

Question 1: How long have you worked in long-term care?			
	Frequency	**Percent**	**Cumulative Percent**
More than 10 years	45	56.3	56.3
5-10 years	13	16.3	72.5
3-5 years	14	17.5	90.0
1-2 years	7	8.8	98.8
Less than 1 year	1	1.3	100.0
Total	80	100.0	
Question 2: What do you do in long-term care?			
	Frequency	**Percent**	**Cumulative Percent**
Registered Nurse	51	63.7	63.7
Licensed Practical Nurse	29	36.3	100.0
Total	80	100.0	
Question 3: What is the highest level of school you have completed or the highest degree you have received?			
	Frequency	**Percent**	**Cumulative Percent**
Associate degree	35	43.8	43.8
Some college but no degree	19	23.8	67.5
Bachelor degree	12	15.0	82.5
Graduate degree	12	15.0	97.5
High school degree or equivalent (e.g., GED)	1	1.3	98.8

Less than high school degree	0	0	98.8
Missing	1	1.3	100.0
Total	80	100.0	
Question 4: What is your gender?			
	Frequency	**Percent**	**Cumulative Percent**
Female	78	97.5	97.5
Male	2	2.5	100.0
Total	80	100.0	
Question 5: What is your minority status?			
	Frequency	**Percent**	**Cumulative Percent**
White	60	75.0	75.0
Black	17	21.3	96.3
Hispanic	1	1.3	97.5
Other	1	1.3	98.8
Missing	1	1.3	100.0
Total	80	100.0	

Table 2: Communication Questions: Responses of Participating RNs and LPNs

Question 6: How often are you asked your opinion by your leadership?			
	Frequency	**Percent**	**Cumulative Percent**
Often	53	66.3	66.3
Some	20	25.0	91.3
Not enough	5	6.3	97.5
Never	2	2.5	100.0
Total	80	100.0	
Question 7: How often are you told what you need to know by your leadership?			
	Frequency	**Percent**	**Cumulative Percent**
Often	63	78.8	78.8
Some	15	18.8	97.5
Not enough	1	1.3	98.8
Never	1	1.3	100.0
Total	80	100.0	

Table 3: Help Questions: Responses of Participating RNs and LPNs

Question 8: How often in your job do you help others?			
	Frequency	**Percent**	**Cumulative Percent**
Very often	68	85.0	85.0
Somewhat often	12	15.0	100.0
Not very often	0	0	100.0
Never	0	0	100.0
Total	80	100.0	
Question 9: How often in your job do others help you?			
	Frequency	**Percent**	**Cumulative Percent**

Very often	41	51.2	51.2
Somewhat often	27	33.8	85.0
Not very often	12	15.0	100.0
Never	0	0	100.0
Total	80	100.0	

Table 4: Stress Question: Responses of Participating RNs and LPNs

Question 10: How often do you feel excessive stress in the work you do?			
	Frequency	**Percent**	**Cumulative Percent**
Very often	35	43.8	43.8
Somewhat often	30	37.5	81.3
Not very often	14	17.5	98.8
Never	1	1.3	100.0
Total	80	100.0	

Table 5: Correlations of Ordinal Variables (N=79 to 80)

Kendall's tau-b	**Years in LTC**	**Job**	**Years of Education**	**Minority Status**	**Opinion Asked by Leader**	**Sufficient Communi-cations from Leaders**	**Help Others**	**Others Help**	**Excessive Stress**
Years In LTC 1= < 1 year to 5=>10 Years	1.000								
Job RN=7 LPN=6	-.172+	1.000							
Years of Education 12, 13,14,16,18	-.235*	.526**	1.000						
Minority Status White=1 Other=0	-.144	.186+	.116	1.000					
Communication Opinion Asked by Leaders 1=Never to 4=Often	-.088	.131	.137	.212+	1.000				

Sufficient Communication from Leaders 1=Never to 4=Often	.032	.042	.084	.333**	.470**	1.000			
Help Others 1=Never to 4=Very Often	-.105	.120	.210*	-.073	.215*	.378**	1.000		
Others Help 1=Never to 4=Very Often	.025	.125	.125	-.087	.319**	.234*	.317**	1.000	
Excessive Stress 1=Never to 4=Very Often	-.036	-.014	.060	.210+	-.026	-.061	.087	-.128	1.000

+. Correlation is significant at the 0.10 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

Table 6: Communications, Help, and Combined Team Scores

Communication Score (Combining Questions 6-7).			
Score	**Frequency**	**Percent**	**Cumulative Percent**
2	0	0	0
3	0	0	0
4	2	2.5	2.5
5	6	7.5	10.0
6	7	8.8	18.8
7	16	20.0	38.8
8	49	61.3	100.0
Total	80	100.0	
Help Score (Combining Questions 8-9).			
Score	**Frequency**	**Percent**	**Cumulative Percent**
2	0	0	0
3	0	0	0
4	0	0	0
5	3	3.8	3.8
6	17	21.3	25.0
7	20	25.0	50.0
8	40	50.0	100.0
Total	80	100.0	
Team Combined Score (Communication Score + Help Score)			
Score	**Frequency**	**Percent**	**Cumulative Percent**
4-9	0	0	0
10	2	2.5	2.5
11	4	5.0	7.5
12	6	7.5	15.0
13	5	6.3	21.3
14	16	20.0	41.3
15	16	20.0	61.3
16	31	38.8	100.0
Total	80	100.0	

Table 7: Correlations: All Stress Levels (N=80)

Kendall's tau-b	Help	Communication	Team	Excessive Stress
Help Score (2-8)	1.000			
Communication Score (2-8)	.347**	1.000		
Team-Combined Score (4-16)	.762**	.739**	1.000	
Excessive Stress (1-4)	-.083	-.040	-.095	1.000
**. Correlation is significant at the 0.01 level (2-tailed).				

Table 8: Correlations: All Stress Levels except "Very Often" (N=45)

Kendall's tau-b	Help	Communication	Team	Excessive Stress
Help Score (2-8)	1.000			
Communication Score (2-8)	.388**	1.000		
Team-Combined Score (4-16)	.780**	.755**	1.000	
Excessive Stress (1-3)	-.176	-.378**	-.329*	1.000
**. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level				

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Timely Curriculum Changes to an Undergraduate Actuarial Program

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INTRODUCTION

In the last decade mathematics departments in many universities around the country have established actuarial science as a major, concentration, or area of study. The profitable career choice of becoming an actuary has become well-known to parents and high school students, who are interested in mathematics, which at least partially drives a school to develop a program. Not all schools house the actuarial major in a mathematics department, but the number of universities, offering actuarial courses, has grown significantly in the last few years. At this time there are approximately 160 universities in the US alone offering this course of study (Society of Actuaries, 2016). Bryant University was one of the first schools in the country to start an undergraduate actuarial program in 1982. The program has grown from its first graduating class in 1986 of 5 students to a current total student enrollment of 170 (164 majors, 4 minors and 2 concentrators). This major represents 29% of all students in the College of Arts and Science students and approximately 5% of all undergraduate students currently at the University. A detailed description of how the Bryant University program was initiated and developed over the years can be found in a previous paper by Kennedy and Schumacher (2014).

All university programs must frequently examine the actuarial coursework required for completion of a degree within the field. The two leading actuarial organizations in the US are the Society of Actuaries (SOA) and the Casualty Actuarial Society (CAS). These two organizations develop and administer the actuarial professional exams, and all university programs must keep the curriculum up to date to conform to the ever-changing requirements for the SOA/CAS. This paper highlights some of the most recent changes implemented by the Bryant University program and how the results of these changes have helped our students continue on a path to success.

CURRICULUM CHANGES

When the actuarial program was initiated in 1982, the department was not overly concerned with students passing the professional exams before graduation. Over time, the job market for actuarial students has changed and the importance of passing exams has become apparent. In order to help our students secure an actuarial position upon graduation, we now maintain a goal that our students should pass two exams before leaving Bryant, and we support our students for up to 5 exams. Again a detailed description of how the curriculum incrementally changed since 1982 can be found in previous works by Bishop and Schumacher (2000) and Kennedy and Schumacher (2014). Up until 2014, the students had no electives within the

actuarial program, and they were academically prepared to sit for Exam P/1 (Probability) and FM/2 (Financial Mathematics). To sustain our strong exam pass rates, changes in the curriculum were necessary to conform to the ever-changing requirements for the SOA/CAS.

In 2014 the department implemented a significant change to the curriculum to enable all students to take academic courses covering the material for four preliminary actuarial exams. One main change was to introduce electives, so students would begin to think about whether they would choose the Life or the Property and Casualty side of the actuarial world.

The first elective developed was to cover in depth material for Exam MFE/3F (Models for Financial Economics). The SOA provides a set of learning outcomes for their examinations and for MFE and they can be found on the SOA website: http://www.soa.org/education/exam-req/edu-exam-mfe-detail.aspx. This elective titled: Actuarial Mathematical Models and Stochastic Calculus, was specifically designed to meet the learning objectives of the SOA and CAS by preparing them for Exams MFE/3F. The underlying foundation of this course is the mathematics and economics of the pricing of financial options. Specifically, this course introduced topics in derivative pricing and stochastic calculus including binomial models, Black-Scholes formula, and lognormal stock price models, Brownian Motion, volatility, exotic options and interest rate models. The class material is based on the classic text, Derivative Markets by MacDonald, which is endorsed by the SOA for Exam MFE.

The second elective development was re-vamping a course that originally was required for the major, Advanced Probability. This course was given a more statistical emphasis, by replacing content on stochastic processes with material on model fitting with censored or left truncated data. The course now covers advanced probability techniques such as conditioning and mixture distributions, as well as their application in the context of model fitting using non-parametric methods, maximum likelihood estimation, and Bayesian analysis (including credibility based approximations). Currently, the course covers approximately two thirds of the topics on the SOA Exam C syllabus.

Flipped classrooms have been used for different courses of study. For example, Missildine et al. (2013) illustrated how the flipped classroom provided higher examination scores for nursing students. Likewise Berret (2012) reports on how classrooms have been flipped in a variety of courses as evolutionary biology, calculus, and physics. Similarly, Advanced Probability is taught using a flipped class room format, utilizing both on-line videos to deliver mathematical content, and on-line problems for homework. The on-line materials are provided by The Infinite Actuary. Class time is used for brief summaries, working difficult problems, and exploring how to apply the model fitting techniques to larger data sets using R. One of the biggest benefits of using pre-recorded videos for content delivery is that it allows for enforcing the pace, while still making time for helping students with individual questions that they may have. In addition, the on-line homework system automatically tracks students' efforts and thus holds them accountable for engaging with the on-line content. With the content delivery on guided "autopilot", there is room to explore the application of the mathematical concepts to realistic actuarial datasets.

The third elective expansion was a new course on Reserving. The original program curriculum was heavily skewed to the Life side of the field of actuarial practice. The first elective explicitly designed to introduce students to the Property and Casualty (P&C) side of actuarial practice was Fundamentals of Property and Casualty Reserving. The reserve for unpaid claim liabilities is a major item on the balance sheet of every P&C insurer and estimating this quantity is a core responsibility of actuaries. The course covers deterministic reserve projection methods (LDM

and Bornhuetter-Ferguson) in detail, and introduces students to General Linear Model (GLM) based stochastic reserving methods. The course is both Excel driven and writing intensive, requiring students to prepare a technical report that introduces students to professional documentation standards.

The final overall elective change was to design a host of seminar courses. The original curriculum had one seminar course that was created to prepare students for the first exam, Exam P, and this was a required course. Although students had covered the material for Exam P in previous courses, the students needed to mature their study habits for exam preparation, which would improve their chances for success on the professional exams. It became apparent that more actuarial mathematics seminars were needed as pedagogical tools to help our students synthesize knowledge from multiple courses and to help them solve practical actuarial problems using techniques taught in previous courses. Compared to the existing exam preparation seminar, the new actuarial seminars were deliberately designed to raise the academic bar. All of the seminars emphasize developing the tacit knowledge needed to proficiently deal with a range of problems encountered as a practicing actuary.

As of 2014 a student could choose one seminar from the following electives:

- Applied Actuarial Mathematics Seminar: Exam P/1 (2 credits)
- Applied Actuarial Mathematics Seminar: Exam FM/2 (2 credits)
- Advanced Actuarial Mathematics Seminar: Exam MLC/LC (2 credits)
- Advanced Actuarial Mathematics Seminar: Exam MFE/3F (2 credits)
- Advanced Actuarial Mathematics Seminar: Exam C/4 (2 credits)

Again, the methodology of "flipping the classroom" worked nicely for these seminars. The students independently study video lectures and other on-line content provided by The Infinite Actuary (TIA) or Coaching Actuaries (CA), and they work on problems during class time, the time normally appropriated for lectures. Again, one of the biggest benefits is maintaining the pace of content delivery, while making time for individual trouble shooting.

Assessing Results From the Curriculum Changes

Over the years the department tracked information concerning the student pass rate on professional exams and collected noteworthy artifacts regarding student success in general. The graduating class of 1986 had 5 students, and by their junior year, 2 had successfully completed the first actuarial exam. Statistically, that was a pass rate of 40% in the first class!

The following tables highlights the pass rates from 2013 – 2015, since the changes were made in 2014. This information was gleaned from a survey administered to the majors within the department. Some of the students in the survey may not have been an actuarial major. The other major within the department is the Applied Mathematics and Statistics major, and a few students do attempt the first exam although they are not Actuarial majors.

2013: All Survey Respondents:

Exam	P/1		FM/2		MFE		MLC
# Taking	57		20		2		0
# Passing	32		17		2		0
% Pass	56%		85%		100%		0%

2014: All Survey Respondents

Exam	P/1	FM/2	MFE	MLC
# Taking	59	23	3	0
# Passing	33	17	3	0
% Pass	56%	74%	100%	0%

2015: All Survey Respondents

Exam	P/1	FM/2	MFE	MLC
# Taking	56	22	4	1
# Passing	33	19	3	1
% Pass	59%	86%	75%	100%

Bryant University allows all students to pursue a degree in Actuarial Mathematics, although a student may have difficulty in passing a professional exam. At least one major university requires that a student, with low grades, must pass at least one exam to be in the major (Ohio State, 2016). Thus we do not expect to achieve a pass rate of 100% on either of the first two exams. The reasoning for a pass rate of 100% on MLC in 2015 is obvious. However, it is clear to see that since 2014, more students are taking more exams while they are still in their undergraduate program. That is a direct achievement of the new curriculum change since 2014.

FUTURE GROWTH

The Society of Actuaries published a list of skills that are needed for someone to be successful as an actuary (SOA, 2009). Analytic problem solving is certainly important, but they also list other necessary skills such as communication, interpersonal collaboration, leadership, professional values, and others as well. Bryant University offers a unique undergraduate curriculum in that any student who graduates from the College of Arts and Sciences must also have a minor in business from the College of Business. Through this crossing of both colleges, the Bryant students are well educated in the analytics necessary to become an actuary, but they also develop important business qualities. Furthermore, the students have ample opportunity to sharpen their communication skills both in the College of Arts and Sciences as well as the College of Business. As stated by Roth, there is a need for two types of actuaries. One is a person who is very technical and is very capable of creating new mathematical models to measure risk. The other is a person who is technically savvy or astute, but is someone who also understands business models and concepts that influence a business decision (2016).

In the future university actuarial curriculum will need to expand to embrace many business models as well as assuring that the student is well founded in actuarial mathematics. A working knowledge of a foreign language would certainly be important as students look forward to working in a global environment.

As indicated in the 2014 Economist Intelligence Unit report on the actuarial job market, there are now more graduates seeking entry into the actuarial career than there are openings for entry level positions. In this climate bigger employers very much get to choose which job applicants will be given further consideration. The number of exams passed while in college is an obvious and easily quantifiable criterion for narrowing the candidate pool. Many employers also consider actuarial internship experience a "must have" attribute. Actuarial programs interested in the placement rate of their graduates are therefore well advised to foster formal and informal relationships with potential employers. Actuarial programs should approach such relationship building with confidence and negotiate arrangements (e.g. a commitment to provide a certain number of internships to students from the program) that benefit the

program as a whole in exchange for giving employers early access to students that allows them to cherry pick the best candidates before they even enter the open job market.

In the last several years, some of our graduates have chosen to go on to graduate school rather than going straight to work as an actuary. Also some have chosen to work in a research "think tank" to prepare for future graduate work. Furthermore, some of the faculty have started research work with undergraduates. In the graduating class of 2015, one of our graduates worked on a manuscript on "Comparison of simulation techniques for the sampling distribution of reserve estimates based on development triangle GLMs" that was presented at the 2015 Actuarial Research Conference in Toronto. We expect that dual type of research to expand in the next few years. Again, this is a direct result of the curriculum changes. Students are now being exposed to both Life and Property and Casualty, and they are obtaining the academic tools to work on higher level research while still at the undergraduate level.

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The Green Marketing Strategy Muscularly Influence on High-performance of Target Sales for Housing Apartment Complex in Malaysia.

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Abstract

The green marketing strategy considers as a marketing strategy with green natural environmental facilities strongly associated with the 4Ps in the property market. The terms green marketing is known as incorporate of the natural green environmental element in marketing strategy. This green marketing directly influences on product, price, place and promotional activities to achieve the target sales. This green marketing is basically appropriate in property marketing because most of the customers want the green environment to reside in the city to get a healthy life. The green environmental elements must intensification of the beauty of product to attract the target customer. Most of the developers applied this policy in their marketing strategy as an effect they achieved the target goals.

Keywords: Environment of product influence on sales, Environmental value, added price influence on sales, Environmental location influence on sales and green advertising influence on sales.

INTRODUCTION

The modern marketing is a communication between vendor and purchaser through selected values of product or services and maintaining a seller and buyer successful relationships (Marina Vaskovich 2012). In this case, the green marketing is the marketing strategy strongly highlights the green facilities with the product in their advertising to influence the target customers to buy the product. The green is a necessity for healthy life the green environmental surrounding of housing complex is the best example. Many scholars of this field they found on their study that lack of green environmental element at the housing complex as a negative impact on property business.

According to chapter two in literature review mentioned that there are many unkind impacts on property business when the environmental facilities do not exist at the condominium complex. Most of the researcher (B,Yuen 2010; O, Eric 2012; A, Hamid 2012; N G T Policy 2012; K,W, Awang 2008; T, Prato 2011), found the negative impact on property business due to the less exist of the environmental elements as an outcome less buyer, poor sale, more warming, less human activities and less healthy people due to the absence of the environmental element in housing project, as a result, the housing property cannot meet the target profit margin. In this case, the developers developed the condominium but the project is not the success the

reason is very clear. The building construction is good, but it does not meet the demand of customers. The table below shows the many authors discovered the many problems in sales performance.

Table: 1 Absence of Environmental Elements at Housing Project and its Impact on sales

Authors	Year	Natural Environment	Entertainment Element	Health & Safety	Project Location	Impact on Sales
Awang	2008	Environmental Beauty		Car Park		**Less Demand**
Eric	2012	Green Environment	Swimming Pool	Security	Less Accessible	**Less Buyers**
Hamid	2012			Security	Non Popular	**Poor Sales**
NGT Policy	2012	No Natural Environment	No Playground	No Security		**No Human Activity**
Prato	2011	No Green Environment	No Playground		Less Important	**Lower Income Group**
Romanet,al	2013	No Natural Environment			Non Green Area	**Air, Water & Sound Pollution**
Sin	2010	Natural Environment				**Global Warming**
U.S Consumer	2010		Perfect Size Playground			**Children Suffering**
Yuen	2010	Green Trees And Grass	Playground			**Physical and Mental Illness**

Many experts found until 2008 the developers did not focus on the environmental facilities at the apartment complex as a consequence the negative impact on marketing strategy. Such as the product was not attractive, not green zone and not healthy environment, etc. The customers are well educated and high and mid-level income group have the demand on environmental facilities at the apartment complex. The developers realized about the needs of customers and they build the apartment complex with environmental facilities. The table below illustrates the negative impact in marketing strategy when the absence of environmental facilities at the condominium complex.

Table: 2 Absence of Environmental Element in Marketing Strategy and its Impact on sales

Authors	Year	Product	Price	Place / Location	Promotion	Impact on Sales
Bender	2000	Minimum Green	High	Not Settable For Reside	No Discount Price	**Less Buyer**
Chih	2003				No Green Advertising	**Less Sales**
Hamid	2012		Expensive	Non Popular		**Poor Sales**
Iman	2008	No Environmental Quality	Resalable Price		Promotional Price	**No / Less Profit**
Laurie	2008	Natural Beauty		Noise Location		**Less Buyer**
Norhaya	2008	Less Green Product (House)			No Promotiona Price	**Less Choose**

In this case, it is very cleared that lack of environmental facilities at the condominium complex as a deleterious impact on product, price, advertising, and promotional activities in the property marketing strategy. The marketing strategy is acting as a mediator with less green environmental facilities as an outcome is dissatisfaction influence on the performance of sales

THE INFLUENCE OF GREEN ENVIRONMENT OF PRODUCT ON TARGET SALE

The green natural environmental elements are using the marketing strategy such as product, price, place and promotional activities about fulfilling the target sale. The condominium complex is a product of developers, and they decorate this product by the natural green environment. The green environment increases not only the price but also demand. So, the green environmental element influence customer to buy or rent the property. The table and figure explain the level of influence on property sale as below.

Table: 3 Environment of project (Product) influence on sales

Items	Disagree		Moderate		Agree		St. Agree		Mean	Std. Deviation	Rank
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent			
Outlook of project	5	1	30	5.9	238	46.8	236	46.4	4.3811	0.66115	1
Environmental attraction	6	1.2	41	8.1	253	49.7	209	41.1	4.3065	0.66727	2
Information of project	6	1.2	46	9	256	50.3	201	39.5	4.2809	0.67408	3
Highlights green facilities	13	2.6	38	7.5	266	52.3	192	37.7	4.2495	0.70893	4
Online information	10	2	75	14.7	230	45.2	194	38.1	4.1906	0.76913	5
Green advertising	15	3	75	14.7	220	43.2	199	39.1	4.1807	0.80277	6

The above table presents the green marketing influence consumers to buy or rent the housing property. The buyer feels happy to buy to enjoy the city life with the natural green environment. The outlook for the total project is a 1st ranking item, the mean value of outlook of the product is M = 4.3811 and (Std. Deviation is SD = 0.66115). The total environmental beauty can drown the customer's attraction to sales the property. It is 2nd ranking item, the mean value is M = 4.3065 and (Std. Deviation is SD = 0.66727). The information of product or unit is a critical item to influence customers to buy or rent. This item is the 3rd ranking element of the product, and the mean value is M = 4.2809 and (Std. Deviation is SD = 0.67408). The 4th ranking item is green facilities of the project that highlighted by advertising. The mean value of highlights the green environment is M = 4.2495 and (Std. Deviation is SD = 0.70893). Currently, most of the buyer or tenant depend on online information instead of observation. So the online information of the product is 5th ranking item and the mean value is M = 4.1906 and (Std. Deviation is SD = 0.76913). The green advertising is the 6th ranking item. The mean value is M = 4.1807 and (Std. Deviation is SD = 0.80277). All of the items are consider as a green natural environmental elements influence purchase by the product. The figure below is presenting the influence level in percentage.

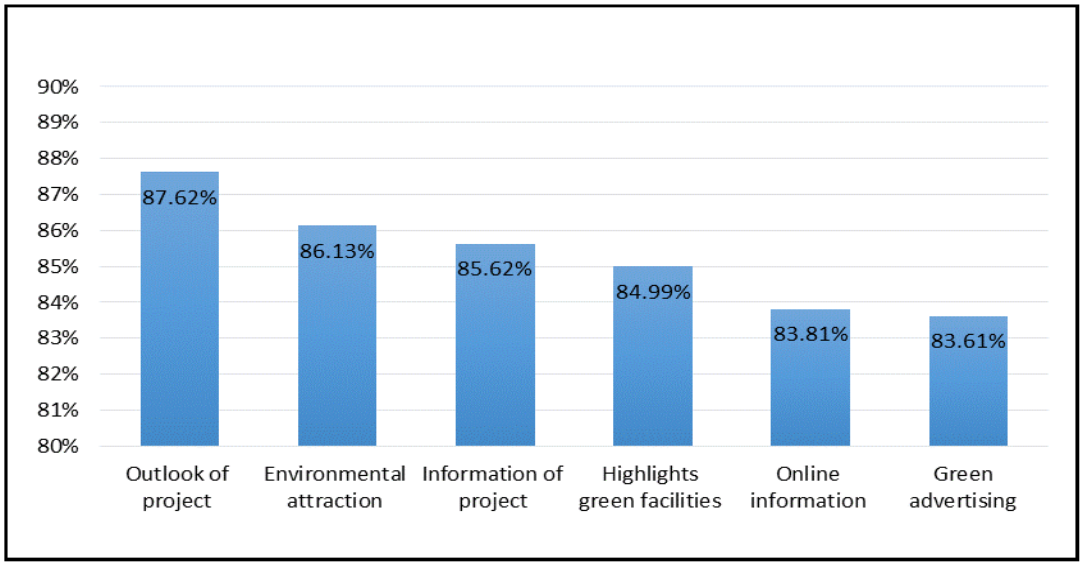

Figure: 1 Environment of project (Product) influence on sales in percentage

The figure clearly elaborates the natural green environment of a housing project (product) influence the target customer to buy or rent the unit in percentage. The first bar is showing 87.62% of buyer influence on the outlook of the project. The second bar explains the environment of condominium area attracts 86.13% customer to buy the property. The information of project is 85.62% buyer influence to buy or rent the housing unit. Highlights the green facilities is an advertising with green facilities 84.99% customer influence to buy or rent. The online information influence 83.81% customers to buy or rent the complex. The green advertising 83.61% client influence in sales activity.

STRATEGIC PRICE WITH ENVIRONMENTAL ELEMENTS INFLUENCES ON SALES

The strategic price with environmental elements it means the high unit price due to the luxury environmental facilities. The existing of environmental facilities with a condominium is very expensive, but non-existing environmental facilities unit price is very economy. The table and figure present the strategic price with environmental elements.

Table: 4 Strategic price influence on property sales

Items	Disagree		Moderate		Agree		St. Agree		Mean	Std. Deviation	Rank
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent			
Price influence	5	1	38	7.5	177	34.8	289	56.8	4.4695	0.69415	1
Promotional price	7	1.4	22	4.3	215	42.2	265	52.1	4.446	0.66369	2
Luxury environmental	6	1.2	37	7.3	227	44.6	239	47	4.3694	0.68815	3
Expensive value	17	3.4	44	8.6	219	43	229	45	4.2868	0.79877	4
Top security system	14	2.8	48	9.4	223	43.8	224	44	4.2849	0.77064	5
Priority environment than price.	16	3.2	55	10.8	224	44	214	42	0.7706	0.78407	6

The table illustrates the strategic housing price influence the customer to purchase or rent the housing unit at the condominium complex. Moreover, ranking the item based on the mean value. The overall unit price is the 1st ranking item in the strategic pricing, and the average value is M = 4.4695 and (Std. Deviation is SD = 0.69415). The promotional price of the unit is

the 2nd ranking item mostly it influence the purchaser not for tenant the mean value is M = 4.446 and (Std. Deviation is SD = 0.66369). Normally the luxury environment of the condominium complex is very expensive, and most of the developer get the high profit from this such a condominium. This item is 3rd ranking, and the mean value is M = 4.3694 and (Std. Deviation is SD = 0.68815). The high level of income group pay the expensive due to the overall environment is healthy, nice swimming pool and peaceful surrounding. This item is 4th ranking fact the mean value is M = 4.2868 and (Std. Deviation is SD = 0.79877). The total security system also influences the customer and tenant. This item is 5th ranking marketing tool and the mean value is M = 4.2849 and (Std. Deviation is SD = 0.77064). The priority of environment than price is the 6th item and the mean value M = 0.7706 and (Std. Deviation is SD = 0.78407). The below figure shows the strategic price influence on property sales in percentage.

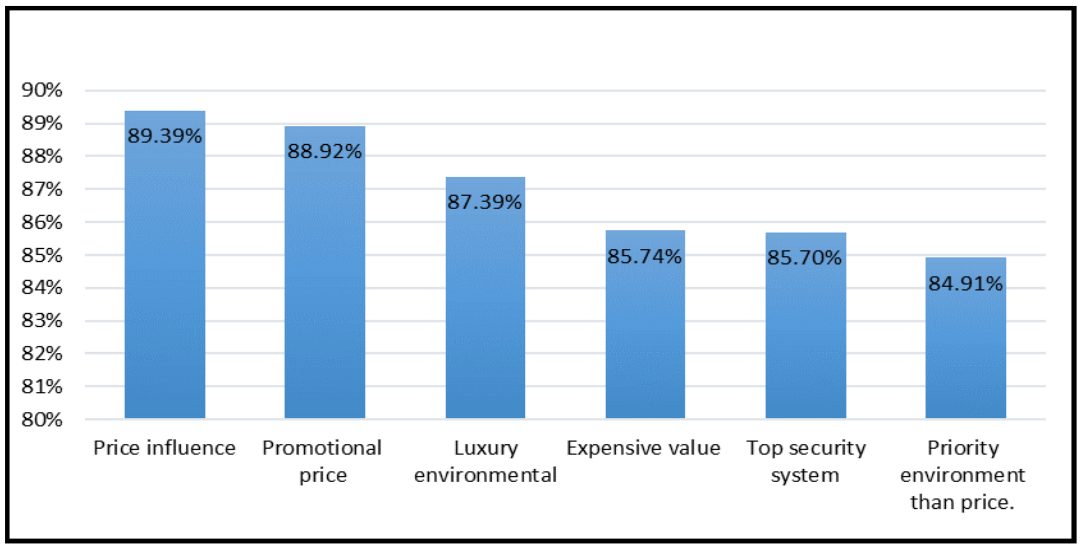

Figure: .2 Strategic price influence on property sales in percentage

The bar chart indicates the strategic price influence customer to buy the property. The overall price 89.39% influence clienteles to engage in property trade. The promotional price also influences 88.92% purchaser to buy or rent the unit. The luxury environment it means every environmental element are a perfect size such as swimming pool, playground and others elements known as luxury environmental elements. The luxury environmental facility with high price influence 87.39% high-level of income group to purchase the housing unit. The most high-level of income people pay the high price due to the expensive environmental element with high price influence 85.74% of property sales. The top security system at the compound of condominium influence 85.70% of property sales in the market. Overall 84.91% people gives the priority of environmental facility than the price, the reason is to have a healthy city life.

STRATEGIC LOCATION AND UNIT POSITION INFLUENCE ON SALES

The strategic location and the unit position is the most important issue in the housing complex. The location of housing complex and holding position mostly influence the customers to buy or rent the property. The table and figure below explain in detailed.

Table: 5 Strategic location and unit position influence on sales

Items	Disagree		Moderate		Agree		St. Agree		Mean	Std. Deviation	Rank
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent			
External accessibility	2	0.4	40	7.9	189	37.1	278	54.6	4.4578	0.66454	1
Location of project	5	1	35	6.9	209	41.1	260	51.1	4.4224	0.66431	2
Internal accessibility	6	1.2	49	9.6	234	46	220	43.2	4.3104	0.70005	3
Unit location	4	0.8	63	12.4	254	49.9	188	36.9	4.2299	0.6875	4
Overall location	10	2	71	13.9	239	47	189	37.1	4.1906	0.751	5
Expensive city location	15	3	64	12.6	248	48.7	182	35.8	4.165	0.78386	6

The table clearly describes the project location and the unit position mostly influence customers to buy or rent the housing property. This table also shows the item ranking in order to the mean values. The external accessibility is one of the 1st ranking strategic location. The mean value is M = 4.4578 and the (Std. Deviation is SD = 0.66454). The overall project location in the city is the 2nd ranking marketing tools the mean value is M = 4.4224 and the (Std. Deviation is SD = 0.66431). The internal accessibility of environmental facility is also very important issue. This item is the 3rd ranking marketing tools. The mean value is M = 4.3104 and (Std. Deviation is SD = 0.70005). The internal unit of the project is the 4th ranking element of quick sales. The mean value is M = 0.6875 and (Std. Deviation is SD = 0.6875). The overall internal and external location and unit position is the 5th ranking element in strategic marketing of the place. The mean value is M = 4.1906 and (Std. Deviation is SD = 0.7510). The imperative location in the city, for example, KLCC area is a very expensive area in Kuala Lumpur. This types of location is consider as an expensive location is the 6th ranking marketing tools to quick sales. The mean value is M = 4.165 and (Std. Deviation is SD = 0.78386). The figure below explain the strategic location influence customers to buy rent in percentage.

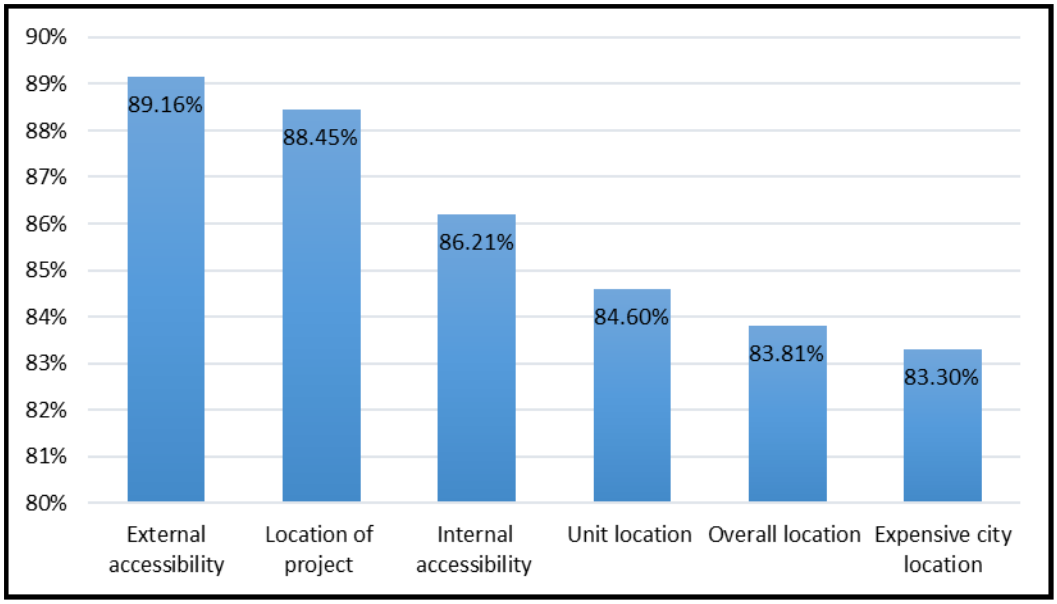

Figure: 3 Strategic location influence on sales in percentage

The figure demonstrates the location of housing project influence the people to purchase or rent the unit in total percentage. The external accessibility bar shows 89.16% people influence

to reside at the condominium complex in the city area. The location of project influence 88.45% of the total sold units. The internal accessibility facility influence 86.21% people to buy the unit. The unit location influence 84.60% and overall location of the complex condominium influence 83.81% of the total sales. Finally, the imperative and very expensive city location influence 83.30% of sales. It means the strategic location completely depends on the external and the internal environmental facility and easy accessibility.

CONCLUSION

The strategic marketing with green environmental facilities influences the customer to buy or rent the housing property. There are four strategic marketing element such as Product, Price, Place and Promotion. All the strategic marketing elements march with environmental elements to influence the target customers to sales the property. The below table and graph mention the detailed with overall ranking based on mean values.

Table: 6 Overall ranking of strategic marketing with green environmental elements.

Items	Mean	Std. Deviation	Ranking
Price influence	4.4695	0.69415	1
External accessibility	4.4578	0.66454	2
Promotional price	4.446	0.66369	3
Location of project	4.4224	0.66431	4
Outlook of project	4.3811	0.66115	5
Luxury environmental	4.3694	0.68815	6
Internal accessibility	4.3104	0.70005	7
Environmental attraction	4.3065	0.66727	8
Expensive value	4.2868	0.79877	9
Top security system	4.2849	0.77064	10
Information of project	4.2809	0.67408	11
Highlights green facilities	4.2495	0.70893	12
Priority environment than price	4.2456	0.78407	13
Unit location	4.2299	0.6875	14
Online information	4.1906	0.76913	15
Overall location	4.1906	0.751	16
Green advertising	4.1807	0.80277	17
Expensive city location	4.165	0.78386	18

The table illustrates the overall ranking of strategic marketing with the green environmental element. The strategic price is one of the most prominent item in the strategic marketing with green environmental elements. It is the 1st ranking marketing tool, and the mean value is M = 4.4695 and (Std. Deviation is SD = 0.69415). The external accessibility of the condominium complex is the 2nd ranking item. The mean value is M = 4.4578 and (Std. Deviation is SD = 0.66454). The strategic promotional price is 3rd ranking item. The mean value is M = 4.446 and (Std. Deviation is SD = 0.66369). The location of the project is 4th ranking item. The mean value is M = 4.4224 and (Std. Deviation is SD = 0.66431). The overall outlook of the project is 5th ranking item. The mean value is M = 4.3811 and (Std. Deviation is SD = 0.66115). The luxury environmental is 6th ranking item. The mean value is M = 4.3694 and (Std. Deviation is SD = 0.68815). The internal accessibility is 7th ranking item. The mean value is M = 4.3104 and (Std. Deviation is SD = 0.70005). The green environmental attraction is 8th ranking item.

The mean value is M = 4.3065 and (Std. Deviation is SD = 0.66727). The high value of the housing unit is 9th ranking item. The mean value is M = 4.2868 and (Std. Deviation is SD = 0.79877).

The top security system at the condominium complex is 10th ranking item. The mean value is M = 4.2849 and (Std. Deviation is SD = 0.77064). The information of project is 11th ranking item. The mean value is M = 4.2809 and (Std. Deviation is SD = 0.67408). Highlights green facilities with advertising kit is 12th ranking item. The mean value is M = 4.2495 and (Std. Deviation is SD = 0.70893). The high-level income group and educated customers give priority environment than price is 13th ranking item. The mean value is M = 4.2456 and (Std. Deviation is SD = 0.78407). The unit position at the condominium complex is 14th ranking item. The mean value is M = 4.2299 and (Std. Deviation is SD = 0.6875). Online information is 15th ranking item. The mean value is M = 4.1906 and (Std. Deviation is SD = 0.76913). The overall location of the housing complex is 16th ranking item. The mean value is M = 4.1906 and (Std. Deviation is SD = 0.7510). Green advertising is 17th ranking item. The mean value is M = 4.1807 and (Std. Deviation is SD = 0.80277). Imperative city location is a very expensive 18th ranking item. The mean value is M = 4.1650 and (Std. Deviation is SD = 0.78386).

The below bar chart clearly displays the marketing strategy with green natural environmental elements influence level on property sales in percentage. The bar graph shows the percentage from 83 percent to 90 percent because the minimum percentage of influence is start 83.30 percent, and maximum influence is 89.39 percent. The minimum influential item is the very important place in the city but the price is most expensive, and the maximum influential item is strategic price most of the customer feels it is the reasonable price. As a result, the strategic pricing is the most significant item in the green strategic marketing elements.

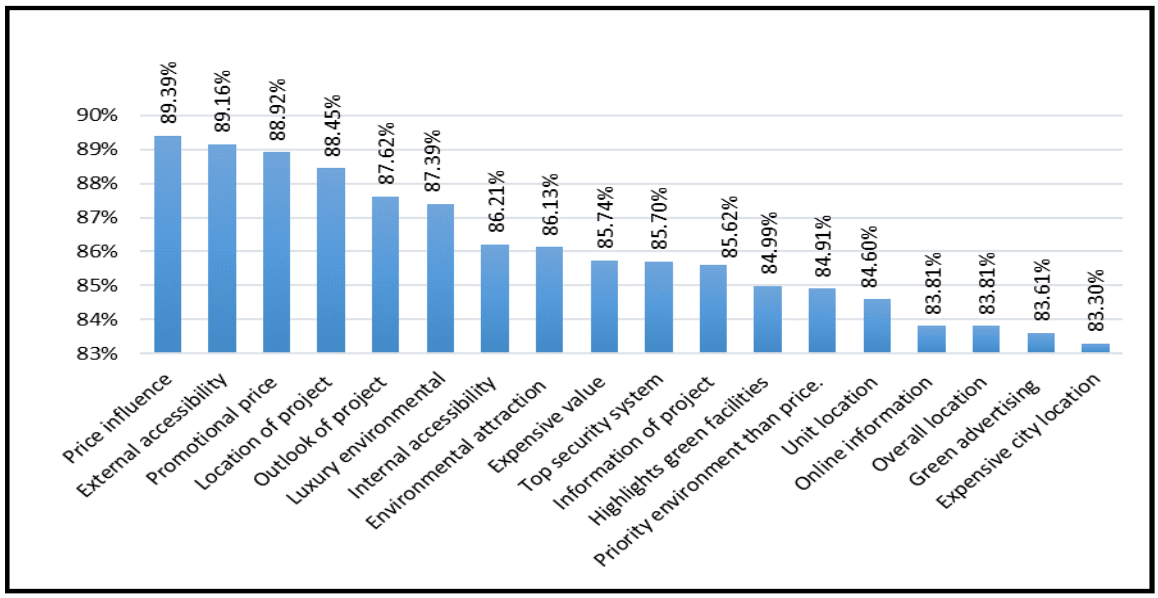

Figure: 4 the influence level of green marketing elements on sales in percentage

The figure explains the influence level of green marketing elements on sales in percentage. Overall strategic marketing with green environmental elements influences customers to buy or rent the property in different level with a different element. Such as the strategic price influence 89.39% customers to engage is sales. The external accessibility of the housing complex influence 89.16% to buy or rent the property. The promotional price influence 88.92% clients and the location of the complex condominium influence 88.45% condominium user in the city area. The outlook of the apartment complex influences 87.62% and the luxury

environment of complex influence 87.39% residences of the compound. The internal accessibility influence 86.21% and the environmental attraction influence 86.13% customer to purchase or rent the unit at the condo. The high value of the environmental element of marketing tool influences 85.74% and excellent security system influence 85.70% people to buy or rent the housing unit. The information of the project influence 85.62% and highlight the green facility at condominium complex influence 84.99% customer to sales the property. The high-level income group 84.91% pay the attention to the green environment instead of price and unit position at the compound influence 84.60% of customers. The online information and overall location influence 83.81% and the green advertising and prominent city location influence 83.60% and 83.30% of the total sales activities in the property market in Kuala Lumpur in Malaysia.

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Does Innovation Impact On Performance Of Organizations? An Empirical Discovery

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Abstract

The need to gain and sustain a competitive advantage is overwhelming for businesses, especially now with cut throat competition. Innovation has been suggested as one way of gaining the advantage sustainably. But innovation can only happen within certain enabling environment and cultures. This study had one hypothesis. That there is no relationship between Innovation and performance. This research was a cross sectional survey in which variables of interest are not controlled or manipulated. The cross sectional survey design is also appropriate for this study as it improves accuracy in generalizing findings since it involves detailed study of a unit. Also known as one shot study, this design enhances uniform data collection and comparison across respondents. The population of the study was the 55 publicly quoted corporations in the Nairobi Securities Exchange (NSE) as at October 2013.The number was initially envisaged to be 60 but 5 firms were delisted or suspended during the year, hence leaving 55 firms as the population of study. The rationale for the choice for these firms is because they cut across the key economic sectors in Kenyan economy which include agriculture, commercial and services, Manufacturing, finance and investment. This was a census survey and targeted all the listed firms at the Nairobi Securities Exchange as of October 2013. The primary data for the study was collected through the use of a structured questionnaire. A five point type likert scale ranging from 1 - denoting to a less event to 5 - denoting to a greater extent was used. Respondents were from senior management of NSE. From the analyses, the study established that there was a strong positive relationship between innovation and performance and organization innovation significantly contribute to employee engagement. Also there was a moderate positive relationship between innovation and performance. The study drew expression of interrelations between various variables, offer generalization of understanding and meaning of these relationships, thus expanding the frontiers of knowledge both theoretical and practice with respect to innovation and firm performance. Major conclusion in this study was that there is a positive strong relationship between innovation and major measures of firm performance.

Key Words: Innovation, Performance, Organizations, NSE, Emperical

INTRODUCTION

It would be expected that a company that is adept at embracing new ideas and implementing them should see an improvement in its performance. The competitive success can be measured in terms of improvements in different Firm performance, such as return on investment and market share (Porter, 1988).

Sometimes, however, innovation does not lead to Firm performance. An example of this would be when the new idea is introduced but not exploited within the company. It has also been observed that organizational characteristics which aid idea generation may conflict with forces that facilitate adoption and implementation (Zaltman, Duncan and Holbek, 1973). It's only when adopted that the idea will lead to improved Firm performance. To measure performance we should use a "balanced approach'' and should be classified at strategic, tactical and operational levels, and be financial and non-financial measures as well" (Gunasekaran et al., 2001,).

There has been some research in the area of innovation and performance. For example, Caird (1994) found that the innovator is highly important in the commercial success of innovative products in SMEs. Lipparini and Sobrero (1994) argue that the entrepreneur's ability to "glue" external expertise and capabilities in an original and unique way is considered the key factor in pursuing innovative performance. Simon et al. al (2002) found that entrepreneurial confidence, adaptability, product championing, market emphasis and technological newness contributed to performance across all new product introductions in small computer firms.

Wolff and Pett (2006) suggest that internationalization and innovator position have a positive impact on new product improvement in SMEs. Kickul and Gundry (2002) found that the prospector strategy orientation mediated the relationship between proactive personality and three types of innovation: innovative targeting processes, innovative organizational systems, and innovative boundary supports.

A study carried out in Australia by Prajogo (2006) explored the relationship between innovation and performance (in terms of product and process) and business performance (sales growth, market share and profitability) and compared this relationship between manufacturing and service firms. This study was driven by the lack of studies on innovation in service sectors despite the importance of innovation as one of the primary sources of competitive advantage.

Furthermore, as manufacturing firms and service firms are different in many respects, including innovation performance, it could be expected that manufacturing firms could pursue and emphasize different aspects of innovation than their service counterparts.

The study revealed some major findings. First, there was no significant difference between manufacturing and service firms in both product and process innovation performance. The second finding, however, indicated a stronger correlation existed for manufacturing firms than for service firms between innovation and business performance, particularly in relation to process innovation. Third, it was found that process innovation shows a relatively stronger relationship with business performance than product innovation in manufacturing sectors.

LITERATURE REVIEW

This section reviews pertinent literature relevant to this study in areas of innovation and organizational performance

Innovation in Organizations

Innovation within an organization is a multidimensional concept. This includes: product innovation, (changes to design, components and product architectures); process/ operations innovation, technology innovation which includes manufacturing technology and information technology innovation; management systems and organizational innovations (new managerial

systems, such as production control, quality management, and changes in organization, such as decentralization of authority and empowerment (OECD, 2005).

Innovation has been defined as the successful implementation of creative ideas within an organization (Amabile, 1998). It has also been referred to as the exploration of new possibilities and the subsequent successful exploitation of these; hence it is not about merely getting new ideas and the generation of an invention, but about the successful exploitation and diffusion of that invention.

March (1991) uses an organizational learning perspective to distinguish between innovations that explore for new knowledge and innovations that find clever new ways to exploit existing Knowledge. Firms that explore for new knowledge may seek incremental scientific improvements to serve existing markets, or they may break away from the safety of existing products and markets to pursue bold new product ideas or to try to for incremental improvements to existing know-how adds value to existing products for existing markets and is more common than high-risk pure research.

Indeed, the most common approach to innovation is to look for low-risk ways to improve the design of existing products using current knowledge to serve today's markets. Larger and more established firms tend to be more risk-averse and prefer innovations that have a greater chance of making money even if it means that the potential returns are less than spectacular. These firms often have a large installed customer base plus a larger and more geographically dispersed supply chain.

For these firms, the central innovation challenge is to constantly move the Performance bar a little bit higher without losing the ability to keep a complex set of technological and business relationships arranged in an orderly fashion. These firms prefer gradual incremental innovations and tend to delay more fundamental innovations as long as possible (Anderson & Tushman, 1990).

Another typology of Innovation is the breakthrough Innovation. Exploring for new knowledge is well illustrated by basic science that is often pursued in corporate Research and Development (R&D) labs as well as in university research centers. This form of R&D feeds the value chain for new product development by making scientific discoveries and earns a return on investment by claiming ownership to intellectual property through patents and proprietary knowledge. Because this form of R&D can be expensive and risky, it is sometimes hard to justify the investment unless there is some clear idea of the potential market value of new knowledge discoveries (American Management Association, AMA, 2006).

Organizational Innovation is also called Management Innovation and involves exploring new ways in terms of business models, Management techniques and strategies and organizational structures (Hamel, 2006). The attempt to create new products and services may spur organizational Innovation; such as new business models arising to take advantage of newly discovered market opportunities. One of the principal reasons for organizational innovation is that established firms can lose not just their ability to innovate but their insight into the necessity to innovate. Successful firms sometimes become blind to opportunities other than those that sustain their current customer base.

Christensen (2003) explains that as firms sell more technologically advanced and feature-rich products to serve their existing customers, they fail to see discontinuous innovations that would serve new customers in new ways. Overlooked opportunities might include a demand

for new products that are technologically less sophisticated than their current products. By achieving higher mastery of technology and higher mastery of product complexity, firms risk losing a sense of how best to respond to customers whose requirements for simplicity override their need for the most technologically advanced products. Business Process Innovations looks less at what is produced than it does at how it is produced. When Ford Motor moved to a production line system for creating a standardized product, it wound up being a great process Technology innovation combined with a great business model (Davila & Shelton, 2005). In some cases, companies are able to reduce costs while boosting productivity and quality via business process innovations.

Different authors emphasize the importance of different dimensions of innovation. For example, Schumpeter (1934) suggests a range of possible innovative alternatives, namely developing new products or services, developing new methods of production, identifying new markets, discovering new sources of supply, and developing new organizational forms. Miller and Friesen (1983) focus on four dimensions: new product or service innovation, methods of production or rendering of services, risk taking by key executives, and seeking unusual and novel solutions. While Capon et al. (1992) adopt three dimensions of organizational innovativeness: market innovativeness, strategic tendency to pioneer, and technological sophistication. Wang and Ahmed (2004) identify from various research, five main areas that determine an organization's overall innovativeness.

They present these as being product innovativeness, market innovativeness, process innovativeness, behavioral innovativeness, and strategic innovativeness. In line with these perspectives, they define organizational innovativeness as "an organization's overall innovative capability of introducing new products to the market, or opening up new markets, through combining strategic orientation with innovative behavior and process".

While literature has attempted to identify and classify various innovation types, AMA (2006) offers that a subject as complex as innovation will tend to defy neat and discrete categories. This lack of consensus in classifications poses a challenge to innovation measurement and study. This study adopted the classification of Product innovation, Technological innovation, Process Innovation and Technological innovation.

Literature also points to the need for a balance between radical and Incremental Innovation. Interestingly, while radical or breakthrough innovations can reap handsome financial profits, the largest percentage of revenue is still more likely to come from incremental Innovation. Balancing efforts to capture the advantages of both can be a wise but challenging goal for organizations to pursue.

Some research suggests that executives expect a growing percentage of future innovations to come through breakthrough, rather than incremental, innovations (Troy, 2004). That's understandable given that companies that can leverage more radical innovations can realize huge financial gains.

Christensen (2003) in a review of innovations found that, in the year 2000, 37percent of the companies that were leaders in terms of providing a "disruptive" innovation such as computing via cell phones exceeded $100 million in revenues. In contrast, just 3percent of organizations attained such revenue levels if they were in already established markets (McLagan, 2002).

For firms in the high-tech sector, while next-generation innovations represent only 14 percent of product launches and 38percent of revenue, they still bring in 61 percent of profits. The

study also showed that while incremental innovations account for 62 percent of revenue, they bring in only 39 percent of profits. Rovner (2003) argues that organizations should invest more in next-generation technology.

Firm performance

Firm performance refers to the extent to which the organization meets the goals it has set for itself. While financial measures of performance of an organization are usually available, operational measures are typically ad hoc and lack formal structure (Hudson, 2001). Many firms have realized the importance of having both financial and non-financial performance measures. Crowther (1996) noted that while there are various considerations of the need for performance evaluation, it is only by recognizing that performance exists in multiple dimensions that the needs of an organization for its measurement and reporting can be addressed.

In the past, enterprises emphasized financial performance. But today matters have changed significantly. Information development has transformed their competitive basis into the intangible assets and the leadership performance from previous tangible financial performance. Therefore, performance measurement should include non-financial indices such as quality and customer satisfaction, which can be used for an enterprise to effectively evaluate its operational performance and consolidate competitive advantages (Tang, 2010).

According to Choi and Mueller (1992), an enterprise should simultaneously consider financial and non-financial indices for performance evaluation. In other words, qualification and quantification factors should be considered at the same time, because such non-financial indices as employee morale and product quality are very important for its long-term success.

In the research on financial performance indices, Van de Ven and Ferry (1980) thought that the traditional financial performance was the most common indices used to measure organizations by researchers, including return on investment, sales revenue and earning power and so on, in which sales revenue was the most common one. Therefore, in this study, the Firm Performance measurement methods presented by Venkatraman and Ramanujam (1986), which involved both financial and non-financial measures of performance, were used.

A major milestone in Firm performance measurement was the introduction of the balanced scorecard (Kaplan and Norton, 1996) which evaluates performance from four different perspectives: the financial, the internal business process, the customer, and the learning and growth. It is designed to complement financial measures of past performance with their measures of the drivers of future performance.

Therefore the relationship between innovation and organizational performance cannot be ignored in this study. It becomes an important area of study which both scholars and practitioners should consider in every aspect

Research Hypothesis

H1: There is no direct relationship between innovation and Firm performance

METHODS

This research was a cross sectional survey in which variables of interest are not controlled or manipulated. According to Irungu (2007), this design is usually appropriate where presence or absence of significant associations among variables is to be established. The cross sectional survey design is also appropriate for this study as it improves accuracy in generalizing findings

since it involves detailed study of a unit. Also known as one shot study, this design enhances uniform data collection and comparison across respondents.

Thus, this design enabled the establishment of relationships between Innovation and firm performance and thus, by choosing a cross-sectional survey we had the opportunity to collect data across different firms and test this relationship.

The researcher could capture a population's characteristics and test hypothesis quantitatively. Consequently, we had no control of variables and could not manipulate them. This is the essence of using this designe as the researcher only reports what has already happened. Cross-sectional survey guards against any bias.

The population of the study was the 55 publicly quoted corporations in the Nairobi Securities Exchange (NSE) as at October 2013.The number was initially envisaged to be 60 but 5 firms were delisted or suspended during the year, hence leaving 55 firms as the population of study. The rationale for the choice for these firms is because they cut across the key economic sectors in Kenyan economy which include agriculture, commercial and services, Manufacturing, finance and investment. This was a census survey and targeted all the listed firms at the Nairobi Securities Exchange as of October 2013.

According to the rules governing listing in the NSE, the companies must consistently provide their financial reports annually. This presents the advantage of access to secondary performance data and also enables comparison and evaluation against, across and within the same industry and across different industries (Irungu, 2007).The firms listed in NSE were also particularly important for this study since there is demand for high performance placed on them by the shareholders and the NSE, arising out of the stretching targets of economic growth according to Kenyan Vision 2030.Productivity needs to improve, the right Leadership Style need to be identified and employed to ensure growth.

The data was derived from both primary and secondary sources. The two sources of data are meant to reinforce each other (Stiles, 2001). For this study, primary data was obtained from responses on: Innovation and Firm performance.

The primary data for the study was collected through the use of a structured questionnaire. A five point type likert scale ranging from 1 - denoting to a less event to 5 - denoting to a greater extent was used. Respondents were from senior management of NSE. 3 year performance data was sourced from NSE reports (NSE Handbook, 2012).

One questionnaire was delivered to each organization.

For this study, secondary data relating to financial performance was obtained from the listed companies published audited accounts, Nairobi Stock Exchange (NSE) 3 year (2010-2012) manual, and Capital Markets Authority yearly reports. The financial (indicators) data obtained included profit/loss before tax per year, earnings per share and dividend yield.

RESULTS

The influence of Innovation on Firm Performance

The objective of this study was to determine the relationship between Innovation and performance of firms listed in the NSE. To measure performance, the study used Dividend Yield (DY), Earnings per Share (EPS) and Profit before Tax (PBT), Employee Engagement (EE) and Customer Focus (CF). Previous scholars have used these measures in similar studies (Letting,

2009: Sagar and Rajesh, 2008). In order to establish the influence of Innovation on firm performance, the study tested the Hypothesis below:

To investigate the relationship between innovation and firm performance, the study conducted a regression analysis as in the table 1. Innovation was regressed against the various measures of performance (DY, EPS, PBT, EE and CF). The result of influence of Innovation on employee engagement is presented in table 1.

Table 1: Innovation and Employee Engagement

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.855[a]	.730	.696	.33588

ANOVA[c]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	9.473	4	2.368	20.992	.000[a]
	Residual	3.497	31	.113		
	Total	12.971	35			

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	1.804	.587		3.072	.004
	product innovation	-.232	.112	-.226	-2.071	.047
	process innovation	-.251	.151	-.193	-1.655	.108
	technological innovation	.091	.138	.073	.654	.518
	organization innovation	.953	.117	.982	8.157	.000

Predictors: (Constant), Innovation ; Dependent Variable: employee engagement

Predictors: (Constant), organization innovation, product innovation, technological innovation, process innovation

Dependent Variable: Employee Engagement

Source: Research Data, 2014

The results indicate that there is a strong positive relationship between innovation and performance (R= .855) with 73 percent of variation in firm performance being explained by the variation in innovation (R square = 0.73). This implies that 26 per cent variation in firm performance is explained by factors other than innovation. The model was statistically significant (F = 20.99, p value < 0.05).

Product innovation (B = -.232, t =-2.071, P value= 0.047) and organizational innovation (B =.953, t =8.157, P value= 0.000) significantly contribute to employee engagement. The model defining the relationship was thus represented as:

Y= 1.804 -0.232 PI+0.953 OI
Where
Y=employee engagement, PI= product innovation, OI= Organization innovation

Table 2: Innovation and Customer Focus

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.648[a]	.421	.346	.45217

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.600	4	1.150	5.625	.002[a]
	Residual	6.338	31	.204		
	Total	10.938	35			

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.666	.790		2.108	.043
	new product innovation	-.073	.151	-.078	-.484	.631
	process innovation	.035	.204	.029	.170	.866
	technological innovation	.126	.186	.110	.674	.505
	organization innovation	.541	.157	.606	3.436	.002

Predictors: (Constant), organization innovation, new product innovation, technological innovation, process innovation

Predictors: (Constant), organization innovation, new product innovation, technological innovation, process innovation

Dependent Variable: customer focus

Source: Research Data, 2014

The results in table 2 indicate that there is a strong positive relationship between innovation and performance (R= .648) with 42.1 percent of variation in firm performance being explained by the variation in innovation (R square = 0.421). This implies that 58 percent of variation in performance is explained by other factors other than innovation. The model was statistically significant (F = 5.625, p value < 0.05).

Organizational innovation (B =.541, t =3.436, P value= 0.002) significantly contributes to Customer Focus. The model defining the relationship was thus represented as:

Y= 1.66+0.541OI

Where

Y=Customer Focus

OI= Organization Innovation

Table 3: Innovation and Profit before Tax

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.486[a]	.236	.137	3.74795E6

ANOVA[b]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.344E14	4	3.359E13	2.391	.072[a]
	Residual	4.355E14	31	1.405E13		
	Total	5.698E14	35			

The results in table 3 indicate that there is a positive relationship between innovation and profit Before Tax (R= .486) with 23.6 percent of variation in firm performance being explained by the variation in innovation (R square = 0.236). This implies that 74 per cent of variation in profit before tax is explained by other factors other than innovation.The model was, however, not significant (F =2.391, p value > 0.05).

Table 4: Innovation and Employee Engagement

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.547[a]	.299	.279	.51705

ANOVA[b]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	3.881	1	3.881	14.517	.001[a]
	Residual	9.090	34	.267		
	Total	12.971	35			

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.561	.828		.678	0.503
	Innovation	.794	.209	.547	3.810	0.001

Predictors: (Constant), innovation
Dependent Variable: employee engagement

Source: Research Data, 2014

The results in table 4 show the overall relationship between innovation and employee engagement. In this case the various dimensions of innovation are combined to form one composite for innovation. We see a strong positive relationship between innovation and performance (R= .547) with 29.9 percent of variation in firm performance being explained by

the variation in innovation (Rsquare = 0.299). The model was significant (F =14.517, p value <0.05).

Innovation (B =.794, t =3.81, P value= 0.001) significantly contribute to employee engagement. The model defining the relationship was thus represented as:

Y= 0.561+0.794I
Y=Employee Engagement, I= innovation

Table 5: Innovation and Customer Focus

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.545[a]	.297	.276	.47558	
ANOVA[b]					
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	3.248	1	3.248	14.362	.001[a]
	Residual	7.690	34	.226		
	Total	10.938	35			
Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.130	.762		1.483	147
	Innovation	.727	.192	.545	3.790	.001
Predictors: (Constant), Innovation Dependent Variable: Customer Focus						

Source: Research Data, 2014

The results in table 5 indicate that there is a strong positive relationship between innovation and performance (R= .545) with 29.7 percent of variation in firm performance being explained by the variation in innovation (R square = 0.297). This means that 70 percent of variation in customer service is explained by factors other than innovation. The model was significant (F =14.362, p value <0.05).

Innovation (B =.727, t =3.790, P value= 0.001) significantly contribute to Customer focus. The model defining the relationship was thus represented as:

Y= 1.130+0.727 I
Where
Y=Customer focus
I= innovation

Table 6: Innovation and Earnings per Share

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.425[a]	.180	.156	11.21219	
ANOVA[b]					
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	940.307	1	940.307	7.480	.010[a]
	Residual	4274.248	34	125.713		
	Total	5214.554	35			
Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-41.628	17.954		-2.319	.027
	Innovation	12.365	4.521	.425	2.735	.010
Predictors: (Constant), innovation Dependent Variable: earnings per share						

Source: Research Data, 2014

The results in table 6 indicate that there is a moderate positive relationship between innovation and performance (R= .425) with 18 percent of variation in firm performance being explained by innovation (R square = 0.180). This implies that 78 percent of variation in Earnings per share is explained by innovation. The model was significant (F =7.48, p value <0.05).

Innovation (B =12.365, t =2.735, P value= 0.010) significantly contribute to Earnings per share. The model defining the relationship was thus represented as:

Y= -41.628+12.365I
Where
Y=Earnings per share
I= innovation

Table 7: Innovation and Dividend Yield

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.333[a]	.111	.085	2.36153	
ANOVA[b]					
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	23.717	1	23.717	4.253	.047[a]
	Residual	189.611	34	5.577		
	Total	213.328	35			

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.333[a]	.111	.085	2.36153

ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	23.717	1	23.717	4.253	.047[a]
	Residual	189.611	34	5.577		
	Total	213.328	35			

b. Dependent Variable: dividend yield

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-5.259	3.781		-1.391	.173
	Innovation	1.964	.952	.333	2.062	.047

Predictors: (Constant), innovation
Dependent Variable: dividend yield

Source: Research Data, 2014

The results in table 7 indicate that there is a weak positive relationship between innovation and performance (R= .333) with 11.1 percent of variation in firm performance being explained by the variation in innovation (R square = 0.111).This implies that 89 per cent variation in dividend yield is explained by other factors other than innovation. The model was significant (F =4.253, p value <0.05).

Innovation (B =1.964, t =2.062, P value= 0.047) significantly contribute to dividend yield. The model defining the relationship was thus represented as:

Y= -5.259 + 1.964I
Where
Y=Dividend yield, I= innovation

A unit increase in innovation results in 1.964 increase in dividend yield.
From the foregoing, the research established a strong positive relationship between Innovation and employee engagement, with a high proportion of the employee engagement being explained by innovation (73 percent, R2 = 0.73).

Specifically, Organizational innovation and product innovation showed significant contribution to employee engagement. Similar results were recorded for the relationship between Innovation and firm performance, although in this case only organization innovation had significant contribution to customer focus. The results of the relationship between Innovation and financial measures of performance were somehow mixed since the relationship was significant for dividend yield and EPS but not significant for Profit before tax.

These results are consistent with the results of a study among Small and medium Enterprises (SMEs) in Greece by Salavou (2002) that also found that product innovation was a significant determinant of business performance based on Return on Asset (ROA). Several other studies have examined the impact of different innovation forms and innovation dimensions on business performance. Yamin et al.(1997) specifically compared the impact of product innovation versus process innovation on business performance in terms of liquidity, leverage, activity and Return on Investment (ROI).

CONCLUSION

From the section above, the study established some findings. In terms of the relationship between innovation and firm performance, it was established that there was a strong positive relationship between Innovation and employee engagement, with a high proportion of the employee engagement being explained by innovation (73 percent, R2 = 0.73).Specifically, Organizational innovation and product innovation showed significant contribution to employee engagement.

Similar results were recorded for the relationship between Innovation and Customer focus, although in this case only organization innovation had significant contribution to customer focus. The results of the relationship between Innovation and financial measures of performance were somehow mixed since the relationship was significant for dividend yield and EPS but not significant for Profit before tax.

The results indicate that the extent of sacrifice that employees would take to further the interest of the organization depends significantly on the ability of the organization to create new products or to improve their existing products, more so in a continuous manner (that is to innovate). It is apparent that by continuously improving their products and creating new products, organizations sustain their ability to be industry leaders. The positive influence of product innovation on employee engagement therefore implies that employees are proud to be associated with lead organizations and are by extension willing to take great sacrifice to further the interest of the company, if only to maintain this industry leadership position. Additionally and unsurprisingly, the nature of treatment employees receive from their organizations also encourages them to sacrifice for their organizations. Besides quality management and showing concern over employee welfare, companies can enhance employee engagement by continuously improving and recreating their products.

The revelation that organizational innovation positively and significantly affects customer focus imply that organizations that pay close attention to development of their staff with respect to customers and adopt top quality management practices tend to achieve greater focus on their customers.

Such organizations appear to be more interested in people development and satisfaction in general and tend to extend the compassionate treatment to their customers. There is a strong possibility that the staff improvement undertaken by such organizations is focused at providing quality services to their customers on whom they have greater focus anyway. Consequently, organizations that are keen on acquiring new customers as well as those keen on maintaining their customers should focus more on improving the quality of their staff and the manner of treatment they accord them.

This will possibly encourage staff to pursue the organizational goal of maintaining and acquiring business through impressive handling of customers. This finding underscores the need for investment in staff development as a step towards realizing company performance.

Combining all dimensions of innovation into one composite measure, we find that innovation has a positive and significant influence on employee engagement and customer focus.

Similarly, we also find a positive and significant influence of innovation on financial performance indicators such as earnings per share and dividend yield. Such positive influences could be a consequence of the competitive edge courtesy of the product innovations. They could also be a result of customer loyalty achieved via the customer focus that is embedded in the organizational innovation pursued by respective companies. These findings reinforce the need to pay close attention to product improvement/renewal and staff development and welfare as a means of enhancing company performance. Expenditure on staff development and welfare should therefore not be singularly be viewed as a cost to the company but should be understood as an investment that pays off in terms of company's financial performance.

These results indicate a support for Hypothesis H1 and are consistent with those of a previous research. Prajogo (2006) established a positive relationship between Innovation and performance. Deshpande et al (1993) in a study of Japanese firms indicated that innovation led to increase in firm performance in terms of market share, profit before tax and growth rate. The current study, however, did not establish significant positive relationship between innovation and profit before tax.

The study findings also offer credence to findings Salavou (2002) who carried out a study among SMEs operating in the food industry in Greece and also found that product innovation was a significant determinant of business performance based on Return on Asset (ROA). The moderating effect of organizational culture on the relationship between Innovation and firm performance was also examined. The study found out that organizational culture has a moderating effect on the relationship between innovation and employee engagement and also for the relationship between innovation and Customer Focus.

The results were however inconclusive because while there was a positive relationship between Innovation and dividend yield the model was insignificant while the one with Earnings per Share was significant. It was also established that the relationship between innovation and employee engagement was moderated by Leadership Style and the same was true for Customer Focus, Dividend yield, earnings per share but not for profit before tax.

IMPLICATION OF THE STUDY

Innovation has become an important element in enhancing competitive advantage of organizations so as to achieve their goals. Both private and public organizations as well as governments must now take keen interest in Innovation as a source of performance improvement.

With the Kenyan government's declared targets of achieving 10 percent growth year on year, there is need for a good understanding of innovation and how leadership and culture will play even as the government works on its innovation policies and procedures for implementation of new ideas. Western countries such as Canada have long developed Innovation policies within the government so as to address competitiveness against the onslaught by the Eastern bloc countries (such as china) in terms of business (The Innovation framework, 2004).

An Innovation study by Adegoke (2009) focusing on SMEs concluded that there was more impact to be gained from incremental rather than radical innovation within the SMEs in the UK. This study recommended the UK government to make informed decisions with respect to focus and allocation of resources appropriately. It also brought a useful message to large firms

seeking SMEs for takeover based on the latter's apparent focus on radical innovations. The result showed that a link between innovation and sales turnover growth in SMEs .This was an important contribution with important implications. It confirmed the importance of innovation and provided support for the encouragement of innovation in SMEs. Policy and government initiatives directed at SMEs tended to encourage the development of radical innovations (for example, grants for R&D) and entering new geographic markets (for example, the various programmers to encourage export).

From these results, it was recommended that since UK SMEs favor incremental over radical innovation, the policy initiatives could also be made to encourage SMEs to focus on incremental innovations rather than radical ones. The current study, having focused on NSE, will be a good basis for the formation of policies with respect to innovation from an African and specifically Kenyan perspective.

This study provided several implications for management in the organizations. Managers need to understand how their daily actions and the leadership decisions they make all the time will facilitate or inhibit the building of a culture that will enhance innovation, and which will in turn enhance performance of their firms. Specifically, the study established that that Leadership Style has a moderating effect on Innovation - employee engagement relationship. We noted that the effect of innovations on employee engagement is moderated by the inclusion of an additional variable measuring Leadership Style. We also found that in the studied firms, the achievement-oriented and directive Leadership Styles were predominant. In order to encourage employee engagement, company leadership should therefore set clear performance goals and continuously seek ways of supporting their staff to achieve these goals.

Furthermore, employee engagement can also be attained by a leadership system that clarifies pathways to goal achievement, sets standards against which employee performance is measured and employs a prudent use of reward and disciplinary action. It is indeed evident form these findings that such goal-oriented and reward based Leadership Style encourages employees to dedicate themselves to realization of organizational goals. Similarly, Leadership Style had a positive and a moderating effect on the relationship between innovations and customer focus. The inclusion of a measure of Leadership Style improves the variation in customer focus explained by the model by almost 30 percent. These are important for managers to know and keep in mind as they go about their daily duties; leveraging rewards to set the right culture and practicing Leadership Styles that will not inhibit innovations, thus improving firm performance.

One of the roles managers have to keep focusing on is encouraging a culture that will facilitate the doing of business and not inhibit the same. There, however, has been debate as to the practicability of managing culture. According to Ogbonna and Harris (1998), while managing culture is at best difficult and at worst impossible, changes to Leadership Styles are comparatively easily achieved. Literature is replete with quick fix' culture change programs designed to improve Firm Performance (see Deal and Kennedy, 1982), management focus may be directed towards implementing leadership change programs.

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New Version of Economic Growth for Some EU Countries: Tax Discrimination-Oriented Foreign Direct Investment Hunt

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Abstract

This study analyzes the effects of foreign direct investments, which are claimed to be obtained through various regulations made by European Union member countries Luxemburg, Netherlands, Ireland and Belgium in the period of 2004-2013, on the economic growth of the subject countries; by comparing average values of European Union member countries. For as much as, these four subject countries achieved to attract different amounts of investments into their countries by taking advantages of gaps which take place in European Union legislation and they realized their economic growths thanks to the related investments. These four countries which are the members of European Union used the sovereign base areas of the countries and at the same time, they used taxational methods which concern European Union law, when they fulfilled their subject goals. However, today, the methods, which were used by the aforesaid countries in order to achieve the aim of increasing the economic growth, have been spotted by the European Union Commission. Despite this situation, at least the half of the countries, which are mentioned in our study, are unwilling to abandon their illegal economic growth strategies.

Keywords: Foreign Direct Investment, Economic Growth, Taxation.

INTRODUCTION

At the times when European Union was first established, rules related to certain issues were formed and later, the subject rules started to take shape in the frame of the treaties made. In the following years, the countries in the union were imposed to obligations related to these practices by regulating these rules for forming Single Market. The obligations were adopted easily in the fields such as; education and research, environment, energy and infrastructure; as a result, a harmony was easily achieved in the subject issues.

Goods entrance and exits' being free inside the countries taking place in terms of economic integration because of the establishment nature of the Single Market motivated European Union members in the matter of trade. Although the common judgments about the countries outside of Single Market have been improved, there are gaps related to the legislation on this issue of European Union due to the fact that each country has its own system. In addition, the countries' having a system inside the Union forced countries of the Union use some illegal means in order to realize economic growth which is the sole purpose of a state. Especially some EU member countries wanted to attract more foreign investment in the cause of economic growth. Although they got caught by EU authorities, these countries continue to apply these practices.

The most important reason why European Union member countries apply these actions which are beneficial for themselves but harmful for Union is that the Union found it inconvenient to establish rules about some fields and that the issues related to these fields remained flexible.

The primary field among them is taxation. Since taxation bears a striking resembles to a country's sovereignty authority, it is normal for these kinds of problems to arise in European Union. In this study, the practices of EU member countries related to these problems will be referred; the relationship between investments and economic growths of the four countries, which had economic growth by illegal ways in EU, in 10 years period will be analyzed by using Granger Causality Analysis, Regression and Correlation Analysis.

LITERATURE REVIEW

In the study made by King and Rebelo (1990), it is stated that the growth might be more vulnerable against tax rates in the economies that are open to international capital movements; thus, a slight change in tax rates might have a significant effect on growth.

Borensztein, De Gregorio and Lee (1998) analyzed the foreign direct investments' effects on growth by using foreign direct investment data of 69 developing countries. They found a strong and positive relationship between foreign direct investment inflows and growth.

Zhang (1999) revealed in the study for 10 East Asian economies that direct investments increased economic growth in China, Hong Kong, Indonesia, Japan and Taiwan in the long term and in Singapore in the short term.

Nair-Reichert and Weinhold (2001) found a simultaneous correlation relationship between foreign direct investments and economic growth with panel data in 1971-95 period for 24 developing countries in which there is also Turkey. While the study showed causality from foreign direct investments to growth, it concluded that this causality would be more beneficial in open economies.

As a result of causality tests made for the developing countries in the 1975-1998 periods, Lensink and Morrissey (2001) revealed that foreign direct investments had a positive effect on economic growth; besides, they reached the information that the fluctuations happening in foreign direct investments affected economic growth negatively.

Durham (2004) introduced that foreign direct investments and foreign portfolio investments did not have an unlimited positive effect on economic growth and that this limited effect depended on home countries financial and corporate development and attraction capacity in the study in which there are 80 countries including Turkey in 1979-1998 period.

Merlevede and Schoor (2004) observed the effects of structural reforms as well as foreign direct capital investments on growth in 25 economies in transition via panel data systems couplings. The results of the research show that foreign direct capital investments affect growth positively.

Marvah and Tavakoli (2004) analyzed Indonesia, Malaysia, Philippines and Thailand for 1970-1998 periods in terms of the effects of foreign direct investments and export on economic growth. They revealed that each 1% growth's 0,269% in Indonesia, 0,333% in Malaysia, 0,308% in Philippines and 0,217 in Thailand were caused by foreign direct investments.

Alfaro and Charton (2007) found that foreign direct investments had a positive effect on economic growth in their study on 29 OECD member countries for 1985-2000 periods.

Esso's study (2010) was carried out for 10 African countries. The relationship between foreign direct investment and growth was individually analyzed for countries in the frame of co-

integration and causality analyses. According to the results of the research, there are positive long-term relationships between variables, which are subjects of research, in the economies of Angola, Republic of Cote D'ivoire, Kenya, Liberia, Senegal and South Africa.

WAY TO TAXATIONAL IN SOME EUROPEAN UNION COUNTRIES

Since, a country's power of levy from its citizens is related to that country's sovereignty area, the practices related to taxation in European Union is less effective than other practices. Nevertheless, there is a need for harmony in terms of taxation in order to operate single market smoothly, even though this harmony is partial. As especially taxes levied on goods and services such as, value added tax have a direct effect on running of the market, European Union has prepared various reports on this subject and given orders. One of the important reports about indirect taxes is Neumark Report which was published in 1962 underlying taxation policies in European Union after Treaty of Rome. This report puts forward that tax differences need to be removed in order to increase welfare level in European Union. Also, it is suggested in the subject report that value added tax be accepted and various turn-over taxes (many taxes levied on consumption) be removed (European Union; 1962: 97-156). Many orders were given in order to harmonize the rates of value added taxes (VAT) until 1997; and finally, the reduced rates were defined as minimum 5% and standard rates were defined as minimum 15% which were related to VAT which will be applied in purchase and sale of goods and serviced by Union members.

In harmonizing direct taxes, the Union was not as successful as in harmonizing indirect taxes since the authorization of taxation issue of the countries stood out in direct taxes which include income tax and corporation tax. As the income tax can be used as a policy related to re-distribution of income by the state, it is hard to be harmonized. The harmonizing works for corporation tax are based on Neumark Report and Van den Tempel Report. Related harmonizing studies stated that member states had to bring new tax incentives for the taxation of their companies in the frame of the orders given by European Union commission in 1997 which were about harmful tax rivalry. However, obeying these orders was under the initiative of the states (European Union; 1997:2-14). Because of such practices, the Union members had trouble adapting to the issues such as rate and structure of corporation tax and incentives applied to investments despite the orders given in different dates.

Since the corporation tax is calculated on the basis of companies' earnings which create a vast scale of gross domestic product, it affects especially capital movements among countries directly. Hence, the Union members can use inconsistencies and gaps in the tax legislation – primarily the ones in corporation tax legislation- in European Union which is at the position of Single Market and this may result in creating differences about investments getting into countries. Recently, Luxemburg, Netherlands, Ireland and Belgium have become the examples of the countries benefitting from these gaps which have increased their GDP with the investments getting into their countries.

Netherlands and Ireland became the first of the four aforementioned countries to benefit from the gaps in the legislation in the name of attracting more investments into their countries in 2012. According to the subject issue; a company with American origin established a company in Ireland and kept the patent of the products that they sold in Ireland. The company in the USA escaped the tax to be paid in the USA by paying royalties to the company in Ireland for the sales after the product sales, and it derived profit by keeping tax rate in Ireland low for sales which concerned the USA in the first place. Thanks to the gaps in Ireland codes and its being a tax heavens country, the profits could be easily sent to America by a company executive of the

American company in Ireland. When the products were sold to another country in the world except for the USA, the second company in Ireland transferred the profit coming from other countries to its another company in Netherlands without taxation because Ireland is a European Union member. The company in Netherlands sent the profit back to the initial company in Ireland and finally it was sent to the tax heavens country. Since the company in Netherlands takes place among the two companies of Ireland, this method is called "Double Irish with a Dutch Sandwich".

In 2014, it came to light that Luxemburg made secret tax agreements with 340 big global businesses between 2002 and 2010 in order to provide transfers of profits organized in other countries to Luxemburg via low taxes. The conglomerate companies of Luxemburg which have a variety of very advantageous options for taxes have a status of being free of tax and as in the Double Irish with a Dutch Sandwich method; the investments were brought into the country via front corporations established in Luxemburg.

Another country which could attract more investments into its borders due to the gaps in the tax legislation in European Union is Belgium. Belgium's roaring taxation system was found illegal by European Union Commission in 2016. Multinational companies have been paying low taxes because of the practiced tax regulation since 2005 and this situation is disapproved by EU in terms of the EU public support legislation. It is thought that Belgium attracts more investments into its borders and derives a huge profit because Belgium applies low taxation for the global companies.

Table 1: Corporate Tax Rate (%)

GEO/TIME	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Belgium	33	33	33	33	33	33	33	33	33	33
Ireland	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5
Luxembourg	22,88	22,88	22,88	22,88	22,88	21,84	21,84	22,05	22,05	22,47
Netherlands	34,5	31,5	29,6	25,5	25,5	25,5	25,5	25	25	25

Source: OECD, http://stats.oecd.org/, Arrived Time: 15.01.2016.

Table 2: Foreign Direct Investment (Euro)

GEO/TIME	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Belgium	1.018.996	1.218.577	1.345.528	1.568.862	1.594.288	1.553.267	1.559.552	1.635.153	1.563.680	1.469.751
Ireland	1.317.192	1.721.426	2.020.800	2.306.982	2.419.677	2.573.484	2.794.926	2.881.862	3.001.729	3.130.650
Luxembourg	2.475.326	3.160.277	3.681.646	4.175.231	3.958.936	4.178.229	4.719.221	5.351.012	6.128.896	6.506.674
Netherlands	1.770.552	2.129.029	2.355.539	2.603.585	2.378.732	2.343.590	2.536.137	2.737.756	2.825.416	2.685.855

Source: Eurostat, http://ec.europa.eu/eurostat/data/database, Arrived Time: 15.01.2016.

As it can be seen in Table 1 and Table 2; corporate tax rates, which directly affect three countries' investments –except for Netherlands-, either shows no change or shows a slight change between 2004 and 2013. There is a continuous increase observed in foreign direct investments getting into subject countries, especially to Luxemburg. For example, while the corporate tax rates of Luxemburg in 2004 was 22, 88%, the amount of foreign direct investment getting into the country was 2.475.326 with national currency. In the same country, while tax rate was 22, 47% in 2013, the amount of foreign direct investment getting into the country was 6.506.674 with national currency. The increase in foreign direct investments getting into country does not change the corporate tax rates in the countries mentioned above. This situation shows that the increase in coming investment amount does not depend on the rate; and this is realized through the gaps found in taxation systems of the countries. In

Netherlands, while corporate tax rate was 34, 5% in 2004, this rate decreased to 25% in 2013. The investment amount in the subject country increased to 915.303. However, what should not be forgotten is that Ireland was more active in "Double Irish with a Dutch Sandwich" event.

Nonetheless, it is a fact that these four countries in European Union attracted foreign direct investments into their countries with similar methods by abusing the gaps in the EU legislation. It is assumed that the great number of investments has the characteristics of increasing gross domestic products of the aforementioned countries and; therefore, they can increase the economic growth of these countries. Foreign direct investments and GDP data between 2004 and 2013 of the related countries have been subjected to econometric analysis in this study.

METHODOLOGY

Stationary Concept in Time Series and Unit Root Tests

Before analyzing the causal relationships among variables, the stationary degrees of the series must be determined. In the studies exercised with non-stationary time series, spurious regressions might develop. Although in spurious regressions, R2 and significant t statistics value may come into question; the parameter estimations are economically insignificant. Under this circumstance, the stationary of time series that will be used must be tested in order to avoid spurious regressions in the studies exercised with time series analysis (Ümit, 2007: 160).

$$Xt = co + j.Xt\text{-}1 + ET$$

In the equation number (1), if $|j| < l$, Xt series are stationary; and if $|j| = 1$, Xt series are non-stationary. The autoregressive coefficient j's being one or smaller is appropriate for most of the economic time series. When $j > 1$, it is economically not coherent. In the autoregressive equation number (1), $j = 1$ is known as "process with stationary differences" and most of the economic time series are seen as process with stationary differences. In such a process, when $j = 1$, Xt series are said to be integrated in the first degree (Utkulu, 1993: 309). Dickey and Fuller (1987) suggested the easy and proper method of the test Xt's integration degree in the equation (1) and it is known as Dickey Fuller (DF) Test.

Although DF test is an important step in measuring integration degree, it doesn't take autocorrelation in error terms in consideration. If the error term et is with autocorrelation, DF (Dickey-Fuller) test will be void. As a solution for that situation, Dickey and Fuller suggested that lagged values of dependent variable be added to the model as explanatory variable; so that the autocorrelation will be removed. This test, which is named as Augmented Dickey-Fuller Test (ADF), is considered as the most effective test to determine the integration degree; and it is commonly used in practice (Charemza & Deadmen, 1999: 103-104).

Various methods have emerged with the aim of overcoming some deficiencies of Dickey-Fuller test. One of them is Phillips Perron (PP) test which is another alternative unit root test. Dickey and Fuller rule out the effect of structural break on autoregressive process (AR). In order to remove this problem, Perron developed his own test in 1989 and aimed to prevent DF test from accepting the wrong hypothesis which is related to breaks. Besides, the hypothesis about error terms of Dickey and Fuller, which states that they are statistically independent and they have constant variance, was expanded by Perron and also the effects of standard error of error term's being different was included in the process. For that purpose, a nonparametric unit root test is developed. As a consequence, there is not an obligation of not having autocorrelation among error terms in this test (Kır, 2011: 64).

The regression used in Phillips-Perron unit root testis as follows (Enders, 1998: 239).

$$Y_t = \beta_0 + \beta_1 Y_{t-1} + \beta_2 \left(T - \frac{N}{2}\right) + \mu_t$$

In the equation number (2); "N" is the number of observation and "μ" is error term. In this test, "β_1 = 1" zero hypothesis is tested. In order to accept or reject these hypotheses, the test statistics of Phillips-Perron unit root test are compared to critical table values used for Augmented Dickey-Fuller (ADF) unit root test and zero hypotheses are either accepted or rejected. Hereunder, the series are decided to be stationary or not (Altunç, 2008: 118).

In this study, Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests are used in order to determine the stationarity of the series.

Causality Analysis

Granger suggests a causality analysis which is commonly used in economy literature in order to reveal the direction of causality among the analyzed variables. Granger puts forward the concepts of causality and exogeneity. Hereunder, if adding X variable's information to the model contributes to Y variable's estimation, X variable is the cause of Y. Granger causality analysis requires the estimation of the regression which is built on lagged values of each internal value and of the other value (Granger, 1969: 553-560).

In this study, Granger Causality Analysis is used in order to investigate the relationship between GDP and investments. This analysis is executed by using the following equations.

$$Y_t = \alpha_0 + \sum_{i=1}^{k1} \alpha_i Y_{t-i} + \sum_{i=1}^{k2} \beta_i X_{t-i} + u_t$$

$$X_t = X_0 + \sum_{i=1}^{k3} \chi_i X_{t-i} + \sum_{i=1}^{k4} \delta_i Y_{t-i} + v_t$$

Granger causality analysis is carried out by testing if the coefficients of the lagged values of the independent variable coming before the error term equals to zero or not. If the βi coefficients in the equation number (3) are found different from zero in a certain significance level, it is inferred that X is the cause of Y. Similarly, if δi coefficients in the equation number (4) are found different from zero in a certain significance level, Y is the cause of X. In that case, there is a mutual causality relationship between Y and X. If solely βi coefficients in the equation (3) are different from zero, there is a unidirectional causality from X to Y and if solely δi coefficients in the equation number (4) are different from zero, there is a unidirectional causality from Y to X. In case, both βi coefficients and δi coefficients are not different from zero, this means there isn't any causality relationship between these two variables. In the original Granger Causality Test, k1, K2, k3, k4 in the equations show the length of lag and ut and vt show the error terms (Işığıçok, 1994: 93).

Regression and Correlation Analysis

Regression and correlation methods are used in studying the relationship between two or more variables. The relationship between two variables is studied by simple regression analysis, and the relationship among more than two variables is studied by multiple regression analysis. Generally, the core of regression and correlation analysis is based on determining and measuring the form, the direction and the degree of the relationship between two or more variables. While the form of the relationship between variables is determined numerically in regression, the degrees of these relationships are put forward in correlation.

The linear relationship between two variables –one of them is dependent and one of them is independent variable- can be formulated as follows:

$$Y = \alpha + \beta X + \varepsilon$$

In the equation number (5), Y is dependent and X is independent variable and ε is error term. In order t decide which observation represents the dependent variable and which observation represents the independent variable, it is needed to decide which variable affects the other. This requires having information about the observations. The commonly used method in obtaining regression equation is Ordinary Least Squares Method (OLSM). The basis of OLSM is that the value Y's sum of the squares of deviations from regression axis is minimum. In that sense, OLSM regression axis defines the same thing with arithmetic mean (Çakıcı, et. al., 2003: 139-167).

The correlation coefficient is the measurement that displays degree of relationship between variables. When the value is between 0 and 1, there is a positive correlation; when the value is between 0 and -1, there is a negative correlation. If the correlation coefficient equals 0, there isn't any relationship between variables. If it equals 1 or -1, there is a complete correlation. If the correlation coefficient is between 0 and 0.49, the relationship is weak; if it is between 0.5 and 0.74, the relationship is moderate; and if it is between 0.75 and 1, the relationship is strong. The figure of correlation coefficient depends on β coefficient's figure in the regression equation. If β is positive, the correlation is also positive; if it is negative, the correlation is also negative (Akkaya and Pazarlıoğlu, 1998: 85-86).

ECONOMETRIC ANALYSIS

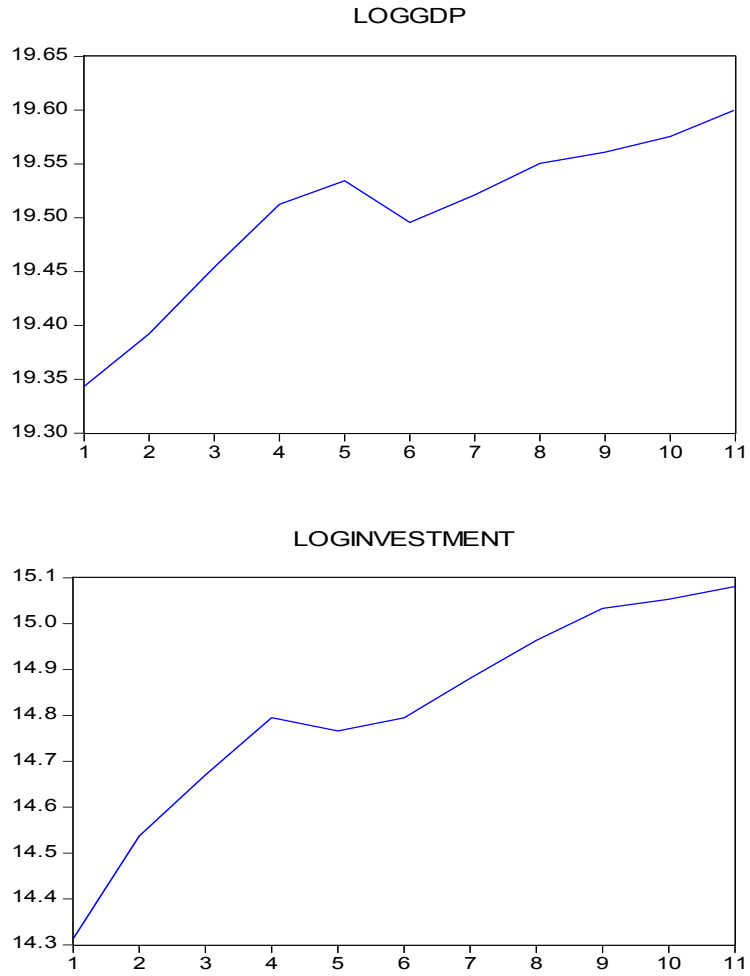
Data Set and Variables

In this study, the relationship between Belgium, Ireland, Luxemburg and Holland's average economic growths and their average foreign direct investments between the years 2004 and 2015 is studied with time series analysis and the numerical results that are found are evaluated. First of all, logarithms of the values are taken in order to avoid the small fluctuations that time series can show. After that, Augmented Dickey Fuller test (ADF) and Phillips Perron test (PP) are done in order to determine if the values belonging to two variables are stationary or not. Then, Granger Causality test is done to determine the causality relationship between variables and finally, Regression and Correlation Analysis is performed to identify the direction and the degree of the relationship.

In the study, how the foreign direct investments affect economic growth in Belgium, Ireland, Luxemburg and Holland between the years 2004 and 2015 is researched. For that, the average annual economic growth and average annual foreign direct investments of the four countries in the subject period are used. The variables used in the application are taken from the database of OECD (Organization for Economic Co-operation and Development) and the database of Eurostat website.

The changes of these data in time can be seen in the Figure 1. GDP used in the analysis is abbreviation for Economic Growth; and Investment is abbreviation for foreign direct investments.

Figure 1. GDP and Investment Series Graph



When the series showing GDP and investment data between 2004 and 2015 are observed, the results are as follows: Both of the graphs follow a similar course and have an increasing course. It draws attention that GDP increases when compared to previous years except for 2009. Similarly, investments tend to increase continuously except for the slight decrease in 2008.

Unit Root Tests

Time series used in the model must be tested in order to see if they are stationary or not. As Granger and Newbold showed (1974), spurious regression problem can occur, in case of a study with non-stationary time series. In that case, the result obtained from regression analysis does not reflect the real relationship (Gujarati, 1999).

When the series have unit root, it means that it is non-stationary. When the fixed data of the test statistics of ADF and PP are examined; the situation for GDP and investment series are as follows: it can be seen that they are nor stationary in the level and they do not show a distribution in a certain average. When the first differences are taken, the test statistics are bigger than critical values determined by Mackinnon in terms of absolute value. As a result, it can be said that when the first differences of GDP and investment series are taken; that is, in I (1), they provide stationarity hypothesis (see. Table 1 and Table 2). The graphs of stationary series whose differences in the first degree are taken are shown in Figure 2.

Figure 2. Graph of GDP and Investment Series with Taken Differences

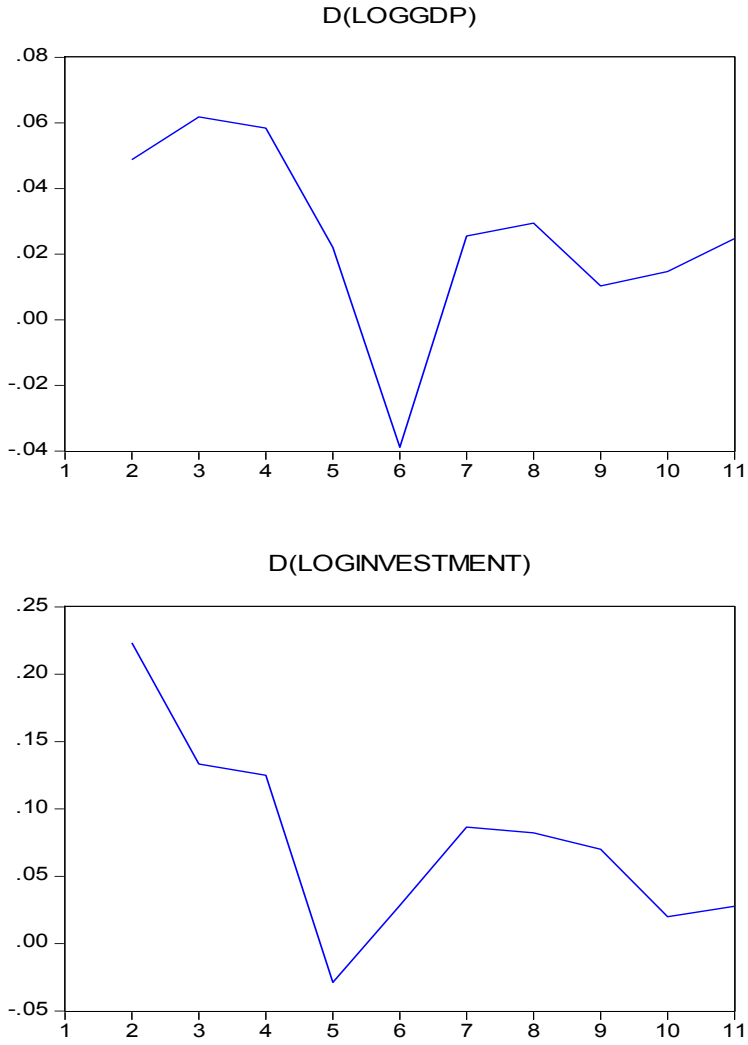


Table 1. ADF Unit Root Test Results

		ADF – t Statistics	
Variables	**MacKinnon Critical Values**	**Level Values**	**First Difference**
GDP	%1=- 4.2970 %5 = -3.2126	-2.4071 (0)	-5.9372 (0)***
INVEST.	%1 = -4.2970 %5 = -3.2126	-2.1456 (0)	-4.3274 (0)***

NOTE: The values in brackets give the length of lag chosen according to SCI criteria. The critical values for ADF are obtained by MacKinnon (1996).

***p<.01, **p<.05, *p<.1.

Table 2. PP Unit Root Test Results

		PP – t Statistics	
Variables	**MacKinnon Critical Values**	**Level Degrees**	**First Difference**
GDP	%1= -4.2971 %5 = -3.2126 %10= -2.7477	-1.2015 (9)	-4.0254 (8)**
INVEST.	%1 = -4.3205 %5 = -3.2598 %10= -2.7711	-2.6076 (0)	-5.0723 (8)***
***NOTE**:* The values in brackets give the length of lag chosen according to SCI criteria. The critical values for PP are obtained by MacKinnon (1996). ***p<.01, **p<.05, *p<.1.			

Granger Causality Test

Granger Causality Test is developed by Granger in order to see if a variable causes another one or not in the model, which is formed in order to estimate a variable. The causality relationship between variables is explained with this test. The length of lag in causality analysis is determined by using Akaike Information Criteria and the length of lag is taken as 2. The obtained results are presented in Table 3.

Table 3: Granger Causality Test Results

Hypothesis	F-statistics	Prospect
GDP is not the cause of investments.	3.5589	0.1394
Investments are not the cause of GDP.	8.1724	0.0387

According to the results of Granger Causality test, the Ho hypothesis stating that GDP is not the Granger cause of investments is accepted (with 0.1394). The Ho hypothesis staing that investments are not the Granger cause of GDP is rejected (with 0.0387) in 5% significance level.

Thus, there is a unidirectional relationship between GDP and investments which is from investments to GDP. As a consequence, changes occurring in investments affect GDP.

Correlation and Regression Analysis

Before starting regression analysis, the causality relationship between GDP and investments must be clarified. If there isn't any causality relationship between these two series, the results of regression analysis will not be significant in terms of economics –even if it is significant statistically.

Also, the direction of the causality must be determined in order to decide which series will be dependent variable (result) and which series will be independent variable (cause) in the model that will be formed for regression analysis. As the causality relation is from investments to GDP in the study, a regression analysis in which GDP will be result and investments are because variable can be formed.

Below, the regression analysis results between these two variables are displayed for the subject period.

Table 4. Regression Analysis Results (Dependent = GDP)

VARIABLES	COEFFICIENT
FIXED	14.6788 (3.9431)*
INVESTMENT	2.3258 (1.2962)*
R^2	0.8491
DW	2.0590
F ist.(Prob.)	0.027

The numbers in brackets are t statistics. The figure * shows significance in 1% level.

In Table 4, regression analysis results are given by using equation number (5). When the regression analysis results obtained from the solution of equation number (5) are evaluated; H0: rejected, H1: accepted and coefficients are significant as the probability values of coefficients are smaller than 1%. For the total significance of the model, F probability is considered and as it is smaller than 5%; H0: rejected, and H1: accepted; and it can be inferred that model is significant. It is seen that "t" value of investments is statistically significant in a level close to 1% and the relationship is in a positive direction. Also, the determination coefficient of the model (R2) is found 0.84 which is closer to a high percentage. On the other hand, D.W (Durbin-Watson) statistic value (2.05) obtained from regression analysis indicates that there isn't any autocorrelation problem among the error terms of the model.

When the results of regression analysis are evaluated in terms of economy, it can be understood that in the four subject countries, the relationship between investment and GDP is in a positive direction. The figure of investment coefficient's being positive proves that. 1% increase in the investments in the subject countries for 2004-2015 period is expected to make a 2.32% increase in GDP. Also, when the investment is fixed, GDP is expected to be 14.67.

The positive relationship between variables obtained from regression analysis can also be seen in Correlation Analysis (see. Table 5). Correlation analysis is carried out with the aim of determining the direction and the strength of the relationship between two variables. Correlation coefficient takes readings between -1 and +1.

Table 5. Correlation Analysis Results

Variables	GDP	INVESTMENT
GDP	1.000000	0.794249
INVESTMENT	0.794249	1.000000

When the data in Table 5 are evaluated, it can be said that the correlation between investments and GDP is positive (0.79) and there is a strong relationship.

CONCLUSION

The European countries consisting European Union confederation have tended towards practices that serve their own interests by violating rules of European Union in time in order to strengthen their economies. These tendencies enabled European Union countries to have economic growth by attracting foreign investments into their countries in the globalizing world especially in 2000s. Ireland and Netherlands transferred the sales made by companies, which were big global non-EU of origin businesses, to the front companies in their countries by using the advantages of being member of European Union. While Luxemburg made big taxational concessions to great foreign businesses for foreign investments, Belgium deliberately applied a taxation system which generated huge profits.

While the tax rates of some of the aforementioned three countries except for Netherlands did not change between 2004 and 2013, some of them showed a slight change. Nevertheless, a continuous increase in foreign investments can be seen. Especially, there is a clear increase in foreign investments of Luxemburg. While the subject country's corporate tax rates ranged around 22%, the foreign investments showed increase with the following amounts; 2.475.326 in 2004, 4.178.229 in 2009 and 6.506.674 in 2013. As it can be seen from the indicators, assumed hypothesis fits to the taxational concessional system of Luxemburg.

Ireland and Netherlands used aforementioned Double Ireland Sandwich Holland system. In this system, even if the foreign company sells inside or outside the country, the front companies in Ireland are used. In fact, the front companies in Netherlands are only used when the foreign company sells outside the country. It is obvious that the effective country in this system is Ireland. Therefore, while the corporate tax rates of Ireland remained in 12,5% level over the years, the corporate tax rate of Netherlands which was 34,5% in 2004 became 25% in 2013. Ireland got ahead of Netherlands in the amount of foreign investment increase that came into the subject countries. Whereas 1.317.192 Euro came in Ireland and 1.770.552 Euro came in Netherlands in 2004, 3.130.650 Euro came in Ireland and only 2.685.855 came in Netherlands in 2013. Also, tax rate of Belgium remained in the same level in the subject years and the investment amount coming in the country followed the same level of course despite the changing conditions of the world.

In this study, the relationship between average GDP and average foreign direct investment of Belgium, Ireland, Luxemburg and Netherlands has been searched with time series analysis by using 2004-2013 period annual data. A unidirectional causality relationship from investments to GDP has been found with Granger causality analysis. The Regression analysis has shown that foreign direct investments affect GDP positively. Also, it is found for 2004-2013 period that a 1% increase in foreign direct investments creates approximately a 2, 3% increase in GDP in these four countries.

As a result of the findings that are obtained from the analysis, it is understood that Ireland, Netherlands, Luxemburg and Belgium made use of gaps in legislations both in their own countries and in European Union while attracting foreign investments into their countries in order to achieve economic growth. This situation is against the Single Market strategy of European Union. Today, the actions of the subject countries have already been ascertained by European Commission. However, some of the subject countries are hanging back about this issue. As a result, the unwilling countries have to be persuaded about this issue, we think that it can only be achieved through enforcements.

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Building Inter-firm Collaboration -Evidence from Vietnamese SMEs in Tourism sector

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Abstract

Inter-firm cooperation has received attention in recent year due to its benefit. However, little has been studied about the way to develop this relationship. In this paper we provide evidence on the development of small and medium-sized enterprises (SMEs) in Vietnam relying on inter-firm relationship. Using a recent national survey in 2014 for tourism sector, empirical results indicate that trust in partner, along with motivation from relationship, are the main predictor of this relationship. Further, it confirms the positive influence of similarities between partners on inter-firm cooperation. Our empirical results indicate that classical determinants of inter-firm relationship including firm age, firm size, location and the ownership are also important in Vietnam. In addition to the traditional indicators we analyze the effect of government support. Direction from the government contributed significantly to the growth of Vietnamese SMEs by fostering inter-firm cooperation, but the importance of this kind of support may be diminishing as private firms do not seem to benefit from this form of support.

Keywords: inter-firm relationship, private, trust, SMEs, Vietnam

INTRODUCTION

Vietnam has introduced officially the economic renovation (Doi moi) since 1986, but it actually adopted a comprehensive and radical reform package aimed at stabilizing and opening the economy in 1990. A new wave of economic reforms has been stirred up with emphasis on private sector development, further trade and investment liberalization with deeper international economic integration especially since 2006 (joining WTO). It is worth noting that the socioeconomic successes have been significantly attributed from the country's small- and medium-sized enterprises (SMEs). They have contributed 39 percent of gross domestic product (GDP), 32 percent of total investment outlays in 2006 (Ho Sy Hung, 2007). Apart from being a relatively dynamic sector in the economy, SMEs have also played an important role in creating jobs, maintaining high mobility of the labor market, and narrowing development gaps among localities of the country.

Inter-firm relationship especially inter-firm cooperation has been the main focus of interest among academics several years. Scholars have conducted various studies to explain the nature of inter-firm relationship (Anderson & Narus, 1990; Close & Kukar-Kinney, 2010; Kennedy et al., 2001; Morgan & Hunt, 1994; Nguyen & Rose, 2009; Nguyen, 2011). Moreover, the relationship between entrepreneurship and its context has been one of primary concern. It has been argued that the environmental context may have a significant impact on entrepreneurship as well as SMEs development (Antoncic & Hisrich 2000; Acs et al., 2008; Boettke & Coyne 2009). Therefore, strengthening SMEs networking with other stakeholders and developing this relationship have long been considered as an effective way to enhance

SMEs competitiveness or capability. Nevertheless, Vietnamese SMEs networks are still limited. Primary assessment suggests that, apart from weak internal networks, there has been not yet a close link between dynamic multinational corporations (MNCs) and non-integrated domestic SMEs (Ho Sy Hung, 2007) and upstream and downstream industries (Vo Tri Thanh & Le Xuan Sang, 2004).

There is much to be learned about inter-firm cooperation. To the author knowledge, managing inter-firm relationships is the most difficult work. On the one hand, managers have for years been making great effort to generate competitive advantage in their business units, but it is much more difficult for a single business today to create and maintain a sustainable competitive advantage. On the other hand, the traditional relationship characterized by price focus, competitive bidding, and short- term contracts has given way, at least in part, to closer and more collaborative relationships characterized by long term focus, mutual trust, mutual dependence, and cooperation (Spekman, 1988). In addition, a large fraction of the cooperative ventures falls short of expectations (Harigan, 1985). Therefore, the study tries to build up SMEs network based on investigating determinants of this relationship. Using SME enterprises in Vietnam, the study revealed the determinants of inter-firm relationship.

We start with the conceptual foundations for this paper and review the current literature of inter-firm collaboration in inter-firm relationships. We then develop hypotheses on inter-firm collaboration. Then the study presents a discussion of the methods, data analyses and results. A discussion on findings and practical implications concludes our paper.

BACKGROUND AND HYPOTHESES

Inter-firm relationships develop from interactions between firms as they exchange goods, services, and knowledge. Oliver (1990) describes inter-organizational relationships as the relatively enduring transactions, flows, and linkages that occur among or between organizations. Inter-firm relationships have the three distinctive types: pure cooperation, pure competition, and coopetition (Galvagno & Garraffo, 2010). Cooperation occurs when firms or groups act together in a coordinated way to pursue shared goals, enjoy an activity, or simply further their relationship (Argyle, 1991). Cooperation is a specific type of inter-firm relationships, which shows a shared interest of working together towards a mutual goal. Cooperation refers to a process, while cooperative alliances refer to the forms (Gray & Wood, 1991). Cooperation also infers that one party gives up some immediate benefits in the hope of receiving a later payoff (Palmer, 2000). The common goals are more important than one actor's profit maximization or opportunism. Partners contribute to the total created value in the relationships, and they are satisfied with a smaller share of the profit to maintain the relationship (Bengtsson & Kock, 2000). Moreover, inter-firm collaboration is not automatic since it is not in the players' interest to behave cooperatively if there are no guarantees that each player will reciprocate (Gibbons, 1992).

Relationship between manager's trust and inter-firm collaboration

Anderson and Narus (1990), defined trust as the firm's belief that another company will perform actions that will result in positive outcomes for the firm, as well as not take unexpected actions that would result in negative outcomes for the firm. The proposed link between trust in the selling firm and the buyer's future purchase intentions also reflects that buyers can rely on the integrity of suppliers they trust. According to Ganesan (1994), trust is a necessary ingredient for long-term orientation because it shifts the focus to future conditions. Empirical evidence supports the notion that trust of the selling firm is central to a buyer's intention to continue the exchange relationship. Anderson and Weitz (1989) find evidence that

trust is key to maintaining continuity in conventional channel relationships. Morgan and Hunt (1994), based on relationship marketing research, confirmed that trust and relationship commitment are the two important elements in fostering cooperation between partners. The similar result also is displayed in recent article when Lui et al. (2006) found that trust has an important role in cooperative behavior. Therefore, we propose the following:

H1: Firm trust in partner is positively related to future interaction with that partner.

Relationship between expectation from inter-firm cooperation and inter-firm collaboration

The current literature on inter-firm relationships and technology acceptance highlights the importance of motivation for behavior. They can be expectation of success (Bagozzi & Warshaw, 1990), perceived usefulness (Davis, 1986), and relationship benefit (Morgan & Hunt, 1994). Firm can engage in inter-firm relationship in order to achieve specific goals/rewards (Huybers & Bennett, 2003; Nguyen, 2011) or perceived desirability (Krueger et al., 2000).

Organizations will build the relationship with other parties when cooperation per se takes on a positive value. Evan (1965) suggested that value expectancy will pull organizations into cooperation. A feeling that cooperation is substantially good may stimulate firms to move in the direction of inter-firm cooperation (Schermerhorn, 1975). Morgan & Hunt (1994) and Friman et al. (2002) revealed that firms that receive superior benefits from partnership will commit themselves into this type of relation. The expectation from inter-firm relationship can stimulate manager's intention to make cooperation with its partner even if they do not possess a positive attitude toward partner or partner's representatives (Nysveen et al., 2005; Nguyen, 2011). Thus,

H2. There is a positive relationship between expectation from inter-firm relationship and inter-firm cooperation

Relationship between entrepreneurial intensity and inter-firm collaboration

Corporate entrepreneurship is a process by which individuals inside organizations pursue opportunities without regard to resources they currently control (Stevenson & Jarillo-Mossi, 1990). Entrepreneurial intensity is characterized by degree and frequency entrepreneurship. Miller and Friesen (1982) argue entrepreneurial firms are characterized by their strong willingness to innovate while taking risks in the process. In addition, through the strategic decision making process where entrepreneurs are willing to take risks, innovative, and proactive, entrepreneurial intensity will facilitate the solving management problems (Barringer & Bluedorn, 1999).

In competitive environment, many organizations commonly acquire ideas or innovations internally. However, there are a number of situations where some organizations seek innovative ideas externally in form of franchising, sub-contracting and strategic alliances. As a means of partial uncertainty absorption, entrepreneurial intensity in the form of environment scanning may lower the perception of risk associated with a potential entrepreneurial venture, increasing the likelihood that the firm will engage in the venture (Barringe & Bluedorn, 1999). Thus, the study expects that:

H3. There is positive relationship between entrepreneurial intensity and inter-firm collaboration.

Relationship between regulation and inter-firm collaboration

Many writers have studied the effect of active public policy on promoting cooperation among businesses. In most developed economy, the government issued local, regional and national policy with the aim at fostering inter-firm cooperation. Rosenfeld (1996) exhibited the efficiency of public program in Denmark. By making a large investment to the support-called program over finite of time, the government hoped that by proving the value of networks, cooperative behavior would become absorbed into the culture. The reasonable object of such programs is to help firms to get the effect of economy of scale, compete better in global market (Arku, 2002). In addition, Kipping (1996) from studying the connection between inter-firm relationships and industrial policy, showed that the governmental policies have important role for the success of French industry. Adobor (2006) cited that the government can facilitate cooperation between companies as the role of third party. By encouraging building business development services and the formation of the agency for SMEs development, the government can provide needed information to companies (Cho & Yu, 2000; Tran et al., 2009, Nguyen, 2011). Moreover, by issuing rule on specific issue, Chinese government has fostered corporations within industrial chain to in carbon emission reduction (Zhang & Wang, 2014). Based on these results, we form the following hypothesis:

H4. There is the positive relationship between regulation and inter-firm cooperation.

Relationship between similarities between partners and inter-firm collaboration

A company will not success in managing alliance if it does not understand its partner. The relatively similarity between partners reduce the incentives for free riding and enhances the possibility of inter-firm cooperation (Huyber & Bennett, 2003). Similarities between partners can shape inter-firm relationship and cooperative behaviour because they can facilitate the articulated knowledge among firms (Teece, 1977; Saxton, 1997). In addition, it can help partners build inter-firm trust and inter-firm cooperation as the result. When firms are similarity in strategic decision and culture, they can get along with its partner. Moreover, similarities between partners lead to balanced inter-firm power relationship and impact to level of cooperation in the network-firm (Chassagnon, 2014). From the survey of SME tourism enterprises in Vietnam, Nguyen (2015) confirmed that similarities among partner who involve in tourism network will enhance the chance of inter-firm relationship. Therefore, we expect that:

METHOD

Data

To examine the hypotheses empirically, we conducted a mail survey of SMEs in tourism industry in 2014. The questionnaire we designed included three parts. The first part consisted of demographic questions, including corporate ownership structure, the number of employees, age, etc. The second part related to inter-firm relationship. The last part asked the respondents about performance and achievements. The questionnaire firstly developed in English and then translated into Vietnamese. A pilot test was undertaken with 30 managers and seniors who were taking MBA program at a major research university in Vietnam.

The sampling frame consisted of 600 companies listed by the Yellow page in Vietnam. To examine the factors promoting inter-firm collaboration, we narrowly defined the observations by excluding respondents that did not answer the question or not complete. As a result, 262 of the observations were utilized for the econometric analysis.

Because this detailed survey is used for many purposes in our studies, the authors only specify the information that is directly used for this paper. From the survey, the majority of participating firms are small size that has less than 200 full-time employees, covers 66.52% of the survey (medium size: 25.21% and large size: 8.27 %). This can be because of Vietnamese still being transition economy. Moreover, about more than half of the enterprises originated from private and foreign sector and are relatively young.

Measures

Dependent and independent variables

The measurement scale development was adapted from literature. All items were assessed on seven-point Likert type scale anchored by 1 (strongly disagree) and 7 (strongly agree). The detail is shown in the table 1.

Table 1: Measurement items and resources

Constructs	Number of items	Sources
Expectation form cooperation (MC)	5	Johnson & Sohi (2001), Stank et al., (2001) and Kim et al. (2012).
Similarity between partner (SP)	6	Saxton (1997) and Adobor (2006).
Entrepreneurial intensity (EI)	3	Covin and Miles (1999), Barringer & Bluedorn (1999).
Regulations (RE)	4	Nguyen (2011); Zhang & Wang (2014)
Trust in partner (TP)	3	Doney & Cannon (1997); Ryu et al (2011).
Inter-firm collaboration (IC)	3	Vereecke & Muylle (2006); Zhang & Wang (2014);

Control variables

Company characteristics have been proved to have significant impact on cooperation behavior and that were controlled for the empirical analysis. They conclude establishment size (measured by number of employee), type of sector, and age of company. According to Fritsch & Lukas (2001), firms are engaged in R&D cooperation, tend to be large. The positive effect of firm's size on inter-organization cooperation in R&D field can also be found in number of works (Fritsch, 2003; Okamuro, 2007). On the contrary, Felzenstein & Gimmon (2007) found the negative effect of size on inter-firm relationship. The second control variable relates to ownership. The dummy variables, which value 1 if firm is owned by specific subject (state, private or foreign owned) are added, respectively. Executives of particular type of ownership likely have different objectives and attitudes toward inter-firm relationship (Nguyen & Rose, 2009; Nguyen, 2011).

The region where the company locates has influenced inter-firm relationship. This will shape the attitude of company's managers toward this relationship. Fritsch & Lukas (2001) and Fritsch (2003) revealed the significant differences in cooperation among regions with regard to the propensity to maintain a cooperative relationship. Based on Vietnamese context, the south will prefer cooperation than the north due to the western influence as the result of market-based experience compare with the bureaucracy-rooted economy in the north (Tran et al., 2009).

Empirical model

The study aims to test the impacts of determinants of inter-firm relationship on the level of cooperation of these relationships. We use inter-firm collaboration to demonstrate external collaboration among partner in the tourism value chain. The empirical model is that:

$$IC_i = \alpha + \varphi MC_i + \chi SP_i + \gamma EI_i + \kappa RE_i + \lambda TP_i + \eta X_i + \tau_i$$

Where Xi is controlling vector; and εi is the error term

RESULTS

Construct validity

Each variable measured with multiple items was subjected a scale development procedure. We conducted exploratory factor analysis for each set of construct. We then checked for satisfactory reliability. End of this step, two items were dropped due to low factor loading. We then conducted confirmatory factor analysis using LISREL 8.80 with the maximum likelihood method to evaluate the convergent and discriminant validity of the measures. Table 2 1 provides the results of the measurement analysis. Result indicated a statistically significant ($\chi^2 = 267.51, df = 174, p = .00$, GFI=0.91, CFI=0.90 and RMSEA=0.067). The result indicated that all constructs have adequate internal consistency with Cronbach's alpha ranging from 0.76 to 0.90, ensuring adequate internal consistence of multiple items of each construct (Hair et al., 2009).

Table 2: Convergent and discriminant validity assessment

Constructs	Number of items (remain)	Cronbach alpha	AVE	Item dropped
Expectation form cooperation (MC)	4	0.87	0.59	1
Similarity between partner (SP)	5	0.90	0.64	1
Entrepreneurial intensity (EI)	3	0.89	0.58	
Regulations (RE)	4	0.76	0.52	
Trust in partner (TP)	3	0.85	0.50	
Inter-firm collaboration (IC)	3	0.88	0.63	

To test convergent validity, we checked the value of AVE and CR (construct reliability). The average percentage of variance extracted (AVE) for all constructs were greater than 0.50, suggesting adequate convergence (Fornell & Larcker, 1981). Moreover, construct reliability of all construct pass the threshold of 0.7 for good reliability (Hair et al., 2009). Therefore, the result indicates good discriminant validity of the model.

Hypotheses tests

Following Van Bruggen et al. (2002), the study adapts a confidence-based weighted mean to obtain construct scores. The single overall confidence score, which is standardized loading, applies for the type of weight. We tested our hypotheses using maximum likelihood estimation by STATA 13 package. To check for multicollinearity, we examined the VIF test. In our regression, the highest VIF value was 1.78. This confirmed that multicollinearity was not a problem. The result was show in table 3.

The first model only includes the independent variable without controlling vector. It is very important to note that these variables are highly significant. The fact that trust in partner is positively and strongly linked to the probability that the inter-firm relationship is strongly

cooperative. This variable is positive and significant for all models proposed (p<0.01). Moreover, trust in partner seems to be the most influence factor for inter-firm relationship. Thus, hypothesis 1 is confirmed. This result is consistent with the previous research findings (Lui et al. 2009; Ryu et al., 2011).

Table 3: Regression result

Variables	Regression results			
	Model 1	**Model 2**	**Model 3**	**Model 4**
Expectation form cooperation (MC)	1.026***	1.110***	1.105**	1.105**
Similarity between partner (SP)	0.321**	0.307**	0.389**	0.389**
Entrepreneurial intensity (EI)	0.684***	0.724***	0.775***	0.775***
Regulations (RE)	0.321*	0.378*	0.327**	0.327**
Trust in partner (TP)	1.381***	0.1.420***	1.657***	1.657***
Small		-0.069	-0.085	-0.085
Medium		0.032*	0.048*	0.059*
Private			0.059*	0.046*
Foreign			0.023	0.037*
Age			No	No
Central				Yes
South				Yes
Constant	Yes	Yes	Yes	Yes
R-squared	0.278	0.312	0.296	0.308
F statistic	9.012***	11.04***	14.67***	14.67***
N	262	262	262	262

Note: *** p<0.01, ** p<0.05, * p<0.1.

Related to the impact of expectation from inter-firm cooperation on inter-firm collaboration, hypothesis 2 predicts that expectation from inter-firm cooperation has positive relationship with inter-firm collaboration. The coefficient has positive sign and is highly. These results provide support for hypothesis 2. This finding reveals the importance of this element in explaining behaviors across wide range of theories (Armitage & Conner, 2001; Carr & Sequeira, 2007, Nguyen, 2015).

Hypothesis 3 states that entrepreneurial intensity is positively associated with inter-firm collaboration. Bases on highly significant evidence in Table 3, the hypothesis is supported. For the Vietnamese context, the attitude of managers toward entrepreneurship will facilitate the building inter-firm relationship due to enhancing risk taking. Hypothesis 4 predicts that regulation is positively related to inter-firm collaboration. It is important to note that this variable is significant. The role of government in shaping industrial relationships by regulation is supported not only in developed countries like French, German, Japan and Korea (Kipping, 1996; Nakamura et al., 1997; Cho & Yu, 2000) but also in transition economy like Vietnam (Nguyen, 2011).

The similarities between partners has a positive influence on the probability of strong inter-firm cooperation. The results also revealed the fact that similarities between partners will facilitate inter-firm cooperation due to reduce free riding among partners. This result also supports for the findings of Saxton (1997) and Nguyen (2015). Hypothesis 5 is thus empirically confirmed. From the result, the difference between regions in inter-firm relationship is

significantly. Within tourism industry, company in the central and the south are willing to create inter-firm relationship, especially for the private sector. Due to high customer demand and resource base, the private sector is likely to form relationship with its partners.

DISCUSSIONS

The empirical results from Vietnamese enterprises data above strongly support the proposed hypotheses for inter-firm relationships. Among the determinants, trust in partner plays the most powerful role in facilitating inter-firm relationship. In Vietnamese context, trust between partners (managers or owners) will direct the potential behaviors. Supporting the RBV's argument that it is the use of the resources, rather than their mere existence that bring competitive advantage as well as customer services, this study suggests that one way to enhance company performance by development SMEs network. Company should reconfigure the resources is to external collaborations so that firm can assess and incorporate resources it does not possess. In addition, "preferably" managerial attitude toward entrepreneurship associated with an increased likelihood of inter-firm cooperation. The entrepreneurial intensity also helps us in understanding the reason why trust has been key mediating variable in commitment-trust theory (Morgan & Hunt, 1994). Fourthly, the results also support the positive effect of regulation on inter-firm relationships. Through management tools such as promulgating an act or publishing policies, government can foster this kind of relationships. Finally, similarity among partners is important factor for building inter-firm relationship.

This study also provides important managerial implications for inter-firm collaboration. First, in order to effectively engage external partners, firms must build and enhance entrepreneurial attitude of its managers. The entrepreurial attitude set the foundation for collaboration. Second, since trust and similarity are very component in inter-firm relationship, firms should evaluate their own capabilities in managing company, leadership style, organizational culture, and relationship. Building some aspects in common, firms will form inter-firm relationship at ease. Third, policy maker should edit the regulation for shaping inter-firm relationship in the way of more efficiently. By this mechanism, government can facilitate this relationship as well as the development of SMEs in Vietnam.

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Analysis of the Effecting Factors on Regional Real Income in Bone Regency

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Abstract

Regional real income is an important aspect in increasing the economic prosperity of Bone Regency. The aims of this study were to determine: (i) regional tax, (ii) regional retribution, (iii) self-governing regional wealth yield, and (iv) miscellaneous official regional real income that affected regional real income of Bone Regency. The study was analyzed by using method of time series. Results of F-value for regional tax, regional retribution, self-governing regional wealth yield, and miscellaneous official regional real income had significant effect on regional real income of Bone regency. Results of t-test revealed that: (i) regional tax variable was not statistically significant affecting regional real income; (ii) regional retribution variable was not statistically significant affecting regional real income; (iii) self-governing regional wealth yield variable was not statistically significant affecting regional real income and; (v) miscellaneous official real regional income variable was not prove significantly affecting regional real income of Bone regency, respectively.

Key words: regional real income, regional tax, retribution, self-governing regional wealth yield, miscellaneous official regional real income.

INTRODUCTION

Economic development aims to increase dignity, self-esteem, quality and social welfare for the whole people. Refer to this view, the development should be continously achieving its objectives. It has been conducted in an integrated and well-arranged fashion to the entire aspect intended to increase the capacity of a specific autonomous region in fulfilling its independence at a matching level to other autonomous regions as well as in raising the prosperity of the nation-state as a whole under equality and justice principles (Sumitro, 1995).

Indonesia is a unitary state in the form of the republic government. It consists of autonomous regions as the consequences of decentralization regulation stated in the Act No. 12 of the year 2012 stipulating two levels of autonomous regional government in serving its own autonomy, namely: regional level I (province) and regional level II (regency and municipality).

Regional real income is an important indicator in determining the capacity of each regional government in conducting its own regional autonomy in an actual and responsible manner. Regional autonomy has been showing positive impacts on rich resources regions that tend to be quite contrary to poor resources ones as a governance problem due to the limitation of regional real income with the result that the process of regional autonomy has not running been well as actually as hoped (Azis, 1997).

Table 1.1 List of Realization of Regional Real Income of Bone Regency for the Year 2009-2015.

Year	Target (Rp)	Realization (Rp)	Achievement (%)
2009	20.578.632.000,00	18.572.234.000,00	90,25
2010	25.937.213.000,00	21.134.931.130,12	81,48
2011	78.185.503.402,00	34.586.504.111,79	44,24
2012	82.794.196.553,00	50.669.450.902,27	61,20
2013	80.756.523.314,02	34.469.112.668,42	42,68
2014	48.376.884.906,00	34.842.143.749,72	72,02
2015	60.437.507.664,00	33.780.847.477,28	55,89

Source: Centre for Statistical Data of Bone Regency

Given in the table above, it is shown that the target and realization of regional real income in Bone Regency for the year 2009-2015 was not achieved maximally compared to the target level, even it tends to show at lower level. Concerning to this fenomenon, the formulation of problems in this study are as follows: Do real regional tax, regional retribution, self-governing wealth yield and miscellaneous official real regional income affect significantly regional real income in Bone regency?

LITERATURE REVIEW

Concept of Regional Real Income

Regional real income has been stipulated in the Chapter 157 of article (a) of the Act No. 32 of Year 2004 on regional government. It states that each regional government should be given autonomy rights in obtaining its own income sources or its self-governing regional income in funding its own government activities in the framework of governance and development activities for the public welfare under equality and justice principles. Those income sources are obtained from regional tax, regional retribution, self-governing regional wealth yield and miscellaneous official regional real income.

Gaining regional real income is the accumulation of several tax posts that consist of regional tax and regional retribution, non-tax sources of regional-owned corporates, investation and natural resources (Bastian, 2002). Moreover, regional real income is obtained from self-governing regional real income sources. Identification of regional real income should analyze, determine and define on whether components categorized as regional real income by identifying and endeavoring as well as managing those regional income sources in a right fashion to achieve maximum yields (Elfa, 2011).

Regional real income refers to income of a specific region that dependent upon general condition of economy and potency of income sources of such a region. Sutrisno (1984: 200) defines regional real income as income of a definite region derived from its own funding sources used for spending its regional activities. Another expert, Luthi et al., (2001) designates two strategies to solve this problem. Firstly, analysis of regional capital domain as an independent entity. In this approach, size of its economy and political jurisdiction.

The Effecting Factors on Regional Real Income

Concept of Regional Tax

Davey (1988) designates several aspects concerning to regional tax. Firstly, taxes are collected by a regional government under its own rules, or in other words, taxes are directly collected from regional public based on its own regional regulations.

Smeet (1982: 92) defines regional tax as enforced yields derived from public individuals specified by regional authorities based on outlined norms stated without giving recompensation to those individuals. Refer to this explanation, it is assumed that tax has an important role for regional income, and moreover it regulates other matters apart from economical issues.

There are several dimensions in assessing various taxes, among others:
Firtly, yield: balance between tax yields and service costs, stability and prediction of such yields and elasticity of tax yields to inflation, population growth, etc. as well as ratio between tax output and accumulated cost. This effort is costly and it was appreciated in the past as the main source of growth of labors either in a national level or a regional one (John and James, 2004).

Gedimins (2013) states that distribution of taxes between central government and regional one based on the fact that delegation of authority from central to regional government is not efficient due to the limitation of both authority delegation in using fiscal resources and discretion of responsibility given to regional government.

Concept of Regional Retribution
Sutrisno Prawirohardjo (1984: 202) defines that regional retribution is regional tax collection where individuals getting benefits or getting jobs, obtaining profits of business or utilizing properties of a definite region, either a direct or an indirect way. On the other hand, R. Sodargo (1980: 62) states that regional retribution is regional tax collection charged to stakeholders as they obtain benefits by utilizing regional properties or getting jobs, gaining profits from business or making use of properties of a definite region or getting services specified under the regulations of regional administration.

Concept of Self-Governing Regional Wealth Yield
Tjahya Supriatna (1993: 194) designates that regional corporates consist of several types. They are as follows: Firstly, regional corporates whose their assets are defined in self-governing regional wealth (without external assets) as the regional enterprise used for development fund.

Facts on the growth of individual income as one of the variants of taxes assessed nominally (it has correlation to inflation) might probably have higher significant differences to the country's prices and tariffs of infllation (it does not have correlation to inflation). Unfortunately, if better riil paramaters are used, price indeces for each country does not show available span of time (Zsolt Becsi, 1996).

Concept of Regional Bruto Domestic Product
Values of Regional Bruto Domestic Product are analyzed into three components, among others: Firstly, analysis of production. Net values of goods and services resulted from production units in a definite region and other regions in a specific period of time (one year). Secondly, analysis of income. Values of recompensation (income) obtaned in a specific period of time (one year). Thirdly, analysis of expenditure. Number of expenditures being spent by families, the government and non-profit organizations, investation as well as net export in a specific period of time (one year). Regarding to this, H. Saberan (2002: 5) states Regional Bruto Domestic Product is an added value in mobilizing economic activities in a spesific region.

Teoritical Review of Regional Bruto Domestic Product

Concerning to the positive correlation between the effects of regional tax on economic development, Musgrave (1991) states that there are three sources in collecting taxes conducted by both central and regional governments, namely: 1) income and corporate, 2) consumption and 3) wealth. Devas et al., (1989) states that taxes for roads ligthing, for example, are charged as a recompensation for consumption of electric by the public. Those values of goods and services produced in a country in one year periode of time. Such goods and services are not only accumulated from individual-owned corporates, but also they are collected from individuals originated from other countries who live in a host country (Sukirno, 2003: 33).

Literature Review of Government Expenditure

According Peacock and Wiseman, the government sometimes formulates regulations regarding to higher expenditure, making public hesitate to pay higher taxes.

Rostow and Musgrave studied the correlation between the stages of development and the economic growth. According to them, in first stage of economic developments, ratio of government expenditure to national income is relatively high. Regarding to this, Dom Busch and Fischer (2003) designate that the increase of government expenditure affects higher level of national income.

Several literatures analyzed the effect of economic expenditure of the government. Several of them are presented in the works of Valerie and Mathew. Neoclassical perspectives of economic expenditure are found in the works of Hall (1980), Barro (1981, 1989), Aschauer and Greenwood (1985), Mankini (1987), Aiyagari, Christiano and Eichenbaum (1992), Baxter and Raja (1993), Braindan McGrattan (993) and Finn (1995) who studied the effect of government expenditure based on the general analysis of dynamically economic equilibrium with market imperfection. Those recent studies identified variables of capital accumulation and labors and they criticized former studies.

Main findings of neo-classical models (Valerie and Matthew) are regarded as the following quote. Permanent increase of government expenditure in non-distornionary funding does not change indirectly marginal ulities of private consumption or unproductive capital shares.

Classification of Government Expenditure

The expenditure of government could be assessed in many facets which divided into two main aspects. Expenditure is an investation in increasing robust and vigorous economic condition at subsequent periode of time and giving both higher opportunity for employment and distribution of buying capacity (Siparmoko, 2000).

Relationship between Government Expenditure and Regional Real Income

According to Mardiasmo (2004), optimal regional real income achievement should be supported by increasing public services. The government that allocates expenditures should showing direct benefits to the public. This aspect is in relation to retribution. People are easier to pay retribution than tax. They hesitate to pay retribution as both quality and quantity of public services are in static trend.

Wong (in Adi, 2004) designates that developing industrial infrastructures has significant impacts on the increase of both regional tax and retributions as one of the regional real income's components in the form of added values received from unmature industrial sector.

METHOD OF THE STUDY

The study used quantitative approach based on the consideration that the data of this study using quantitative data.

RESULTS AND DISCUSSION

One of the indicators in assessing the success of the development of a regional administration is the high level of its economic growth. It is assumed that the growth of economy could increase production factors as a result of economic growth at a higher scale.

The following table presents data progress on realization of regional real income of year 2009-2015 in Bone regency, as indicated below.

Table 4.1 the Progress of Realization of Regional Real Income of Bone Regency of the Year 2009-2015

Year	Target (Rp)	Realization (Rp)
2009	20.578.632.000,00	18.572.234.000,00
2010	25.937.213.000,00	21.134.931.130,12
2011	78.185.503.402,00	34.586.504.111,79
2012	82.794.196.553,00	50.669.450.902,27
2013	80.756.523.314,02	34.469.112.668,42
2014	48.376.884.906,00	34.842.143.749,72
2015	60.437.507.664,00	33.780.847.477,28

Source: Regional Revenue Office of Bone Regency

There are several definite systems in Indonesia in regulating authorities and duties in collecting taxes, from calculation of taxes until proposed rate of taxes. They are among others:

a) Official assessment system is collecting taxes by giving discretion of authority to collectors in assessing tax rate to tax payers (indebted taxes).
b) Semi self assessment system is collecting taxes by giving discreation of authority to both collectors and tax payers in assessing the rate of individual tax.
c) Self assessment system is collecting taxes by giving discretion of authority to tax payers in determining, assessing, giving and reporting its own rate of tax.

Concerning to the progress of tax achievement in Bone Regency, the below table presents the data of target and realization of regional tax achievement of the year 2009-2015, as summarized below.

Table 4.2 the Progress of Regional Tax of Bone Regency of the Year 2009-2015

Year	Target (Rp)	Realization (Rp)
2009	4.468.800.000,00	4.648.800.000.00
2010	5.065.000.000,00	4.168.324.524.00
2011	5.292.420.160,00	5.119.246.938.00
2012	5.489.850.000,00	5.938.898.041.00
2013	6.819.400.000,00	4.512.133.037.00
2014	7.485.340.000,00	8.770.944.605.00
2015	10.395.751.611,00	7.453.780.418.00

Source: Regional Revenue Office of Bone Regency

Realization of Regional Retribution

The progress of target and realization of regional retribution of Bone Regency of the year 2009-2015 is presented below.

Tabel 4.3 the Progress of Regional Retribution Realization of Bone Regency of the Year 2009-2015

Tahun	Target (Rp)	Realization (RP)
2009	8.938.259.000,00	7.886.509.000.00
2010	12.463.174.000,00	11.674.822.920.00
2011	27.119.817.400,00	15.433.189.304.50
2012	19.987.377.000,00	16.242.216.127.00
2013	27.470.602.000,00	14.721.186.543.50
2014	24.416.174.500,00	19.686.225.068.60
2015	10.763.032.000,00	9.049.346.523.50

Source: Regional Revenue Office of Bone Regency

Self-Governing Regional Wealth Yield

Necessity in fulfilling relatively higher self-sufficiency regional funding, rendering autonomous regions in Indonesia are given autonomy rights to look for funding sources in the form of self-governing regional wealth yield based on the Act No. 32 of the Year 2004. Rights for managing those regional wealth yield derived from regional-owned corporates are categorized in inclusive right or partial one within self-governing regional wealth yield.

Regional-owned corporates are divided into two categories, namely: Firtsly, real regional-owned corporates established by the concerned regional administration. Secondly, regional-owned corporates set up by the upper goverment level. In reality, those concerned regional-owned corporates participate in the development through giving attention to the regional development by giving services to the public and assigning support for regional economic welfare.

Table 4.4 Self-Governing Regional Wealth Yield of Bone Regency of the Year 2009-2015

Year	Target (Rp)	Realization (Rp)
2009	777.150.500,00	550.000.000.00
2010	1.385.345.000,00	1.080.345.663.09
2011	1.560.000.000,00	1.200.126.272.91
2012	2.350.000.000,00	1.572.979.856.65
2013	2.350.000.000,00	1.687.505.750.67
2014	1.950.000.000,00	1.549.476.028.08
2015	1.980.641.000,00	1.808.641.054.00

Source: Regional Revenue Office of Bone Regency

Miscellaneous Official Regional Real Income

Chapter 6 of article (1) in remark (d) of the Act No. 33 of the Year 2004, and the subsequent statement of Chapter 6 article (2) of the Act No. 33 of the Year 2004 states that miscellaneous official regional real income are defined into five sources, as follows: 1) selling miscellaneous regional wealth; 2) clearing account; 3) rate expenditure; 4) exchange rate of rupiah to foreign

money and; 5) commission, discount and other price discounts through selling regional services. Those five sources are categorized into regional real income as the regional financial sources, and each of them gives contribution to regional real income achievement.

The progress of realization of miscellaneous official regional real income of Bone Regency of the Year 2009-2001 are presented in the table below.

Table 4.5 Miscellaneous Official Regional Real Income of Bone Regency of the Year 2009-2015

Tahun	Target (Rp)	Realization (Rp)
2009	6.214.422.500,00	5.486.925.000.00
2010	7.023.694.000,00	4.211.438.023.03
2011	44.213.265.842,00	12.833.941.596.38
2012	54.966.969.553,00	26.915.356.877.62
2013	44.116.521.314,02	17.548.287.337.25
2014	14.525.370.406,00	4.835.498.048.04
2015	37.298.083.053,00	15.469.079.481.78

Source: Regional Revenue Office of Bone Regency

DISCUSSION

Analysis of Regression

The effect of regional tax, regional retribution, self-governing regional wealth yield, and official miscellaneous regional real income on regional real income of Bone Regency was shown by results of the analysis of multiple regressions using SPSS 19.0 software as presented below.

Table 4.6: Results of R-Square Determination of the Effect of Regional Tax (X1), Regional Retribution (X2), Self-Governing Regional Wealth Yield (X3) and Miscellaneous Official Regional Real Income (X4) on Regional Real Income (Y).

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.995[a]	.991	.972	1.76838E9

a. Predictors: (Constant), Regional Tax (X1), Regional Retribution (X2), Self-governing regional wealth yield (X3) and Miscellaneous Official Regional Real Income (X4) on the regional real income (Y).

Based on results of the data presented in Table 4.6, the coefficient value of correlation among variables of regional tax, regional retribution, self-governing regional wealth yield and miscellaneous official regional real income simultaneously was 99.5%. Hence, correlation among variables of regional tax, regional retribution, self-governing regional wealth yield and miscellaneous official regional real income showed strong correlation to regional real income.

Coefficient of determination (R-Square) showed simultaneously contribution of variables of regional tax, regional retribution, self-governing regional wealth yield and miscellaneous official regional real income to regional real income. Results of the analysis as shown in Table 4.6 revealed that the value of coefficient of determination was 99.1%. It means that the regional real income could be explained or it was affected by regional tax, regional retribution, self-governing regional wealth yield and miscellaneous official regional real income. Residual value was affected by exceptional independent variables as unobserved variables in this study.

Value of adjusted R-square was 97.2%. It means that dependent variables consisting of regional tax, regional retribution, self-governing regional wealth yield and miscellaneous official regional real income had the effect value of 97.2%. Residual value of determination coefficients was 2,3% (99.5%-97.2%) indicating that there were other factors that explained the effect of the regional real income which unobserved in this study.

Table 4.7.The Effect of Regional Tax (X1), Regional Retribution (X2), Self-Governing Regional Wealth Yield (X3) and Miscellaneous Official Regional Real Income (X4) on Regional Real Income (Y).

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-7.860E8	3.032E9		-.259	.820
	Regional Tax	1.778	.574	.289	3.100	.090
	Regional retribution	.950	.198	.378	4.805	.041
	Self-governing regional wealth yield	-2.176	2.733	-.090	-.796	.509
	Miscellaneous official regional real income	1.053	.119	.834	8.888	.012

Dependent variable: Realization of Regional Real Income

Results of the regression analysis as shown in Table 4.7 were calculated in the formulation: Y=-78.600.000+1,778X1+0,950X2-2,176X3+1,053X. The constant value of the formulation was -78.600.000. It means that this constant value was defined as the achievement value of regional real income (Y) without considering the higher or the lower rate of regional tax, regional retribution, self-governing regional wealth yield and official miscellaneous regional real income, where as, the regression coefficient value was 1.774X1. It means that if regional tax variable ascends up to Rp.1, then regional real income variable will also ascend up Rp. 1.778. The coefficient value of regional retribution was 0.950X2. It means that if retribution variable ascends up to Rp. 1, then real regional income will also ascend up to Rp. 0.950. The coefficient value of self-governing regional wealth yield was -2,176X3. It means that if self-governing regional wealth yield variable ascends up to Rp. 1, then regional real income variable will descend down to Rp. -2,176. The coefficient value of miscellaneous official regional real income was 1.053X4. It means that if miscellaneous official regional real income ascends up to Rp.1, then regional real income will ascend up to Rp.1.053.

F-Test

Table 4.8 The Simultanous Effect of Independent Variables on Dependent Variable Based on F-test.

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	6.623E20	4	1.656E20	52.950	.019[a]
	Residual	6.254E18	2	3.127E18		
	Total	6.686E20	6			

a. Predictors: (Constant), regional tax, regional retribution, self-governing regional wealth yield and miscellaneous official regional real income
b. Dependent Variable: Regional Real Income

Table 4.8 shows both F-value and sig.F value. Criteria of simultaneous tests are determined as follows: If F-value is higher than the table's F-value or if significant F-value is lower than the significance value of (α) 0,005, then results of the analysis will show significantly simulatenous effect. If they show reciprocal yields, then results of the analysis will show insignificantly simultaneous effect.

F-value of the analysis was 52.950. It was higher than the table's F-value of 10.25. Significant F-value was (α) 0, 05. It was concluded that there were other unobserved independent variables that had significant effect on regional real income.

T-Test

T-test is used to calculate the direct effect of regional tax, regional retribution, self-governing regional wealth yield and miscellaneous official regional real income to regional real income. The proposed hypotheses: if both t-value > t-table or probability value is lower than α=0, 05, then regional tax, regional retribution, self-governing regional wealth yield and official miscellaneous regional real income will affect regional real income. On the contrary, if t-value< t-table or probability value is higher than α=0, 05, then regional tax, regional retribution, self-governing regional wealth yield and official miscellaneous regional real income will not affect regional real income.

The effect of regional tax on regional real income as shown in Table 4.7 was statistically insignificant. T-value of regional real income was 3.100. It means it has lower value than t-table's, that was 4.303, and significant level of t-value was 0,090, higher than significant level of (α) 0.05. Based on the criteria, regional tax was partially showing insignificant effect on regional real income. Regression coefficient of regional tax was 1.778. It means that if regional tax value ascends up to Rp.1, then regional real income value will also ascend up to Rp. 1.778.

The effect of self-governing regional wealth yield on regional real income as shown in Table 4.7 proved insignificant effect. Calculated t-value of self-governing regioanal wealth output on regional real income was -0.796. It was lower than t-table value of 4.303, and significant value of 0.509 was higher than significant value of (α) 0.05. Based on the criteria, self-governing real wealth output had partially insignificant effect on regional real income. Regression coefficient of self-governing regional wealth yield was -2.176. It means that if self-governing regional wealth yield value ascends up to Rp.1, then regional real income will descend down to Rp. 2.176.

The effect of miscellaneous official regional real income as shown in Table 4.7 revealed statistically significant effect on regional real income. T-value of miscellaneous official regional

real income on regional real income was 8.888, that means it has higher value than t-table of 4.303, and significant level of t-value was 0.012 and it was lower than significant level of (α) 0.05. Based on the criteria, miscellaneous official regional real income was partially showing significant effect on regional real income. Regression coefficient of regional tax was 1.053. It means that if miscellaneous official regional real income value ascends up to Rp.1, then regional real income value will also ascend up to Rp. 1.778.

CONCLUSION

Based on data analysis of calculated F-value, regional tax, regional retribution, self-governing regional wealth yield, and miscellaneous official regional real income were statistically showing simultaneous effect on regional real income.

Refer to data analysis of calculated t-value, regional tax was partially showing insignificant effect on regional real income. Calculated t-value of regional retribution was partially revealing significant effect on regional real income. Calculated t-value of self-governing regional wealth yield was partially showing insignificant effect on regional real income. Calculated t-value of miscellaneous official regional real income was partially revealing significant effect on regional real income.

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On Novel Language Phonology: What Do Factors tell us in Non-Native Settings?

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Abstract

This paper looks into factors affecting the spoken production of Bilingual Two students of the University of Yaounde I. Emphasis is laid on the effect of three main factors (previously spoken language(s), formal instruction and motivation) which are assumed to impact bilinguals' ultimate attainment in the production of English consonants and vowels. The role of age is discussed incidentally here. The paper follows an inferential reasoning in an attempt to explicate features of CamE and CamFE. It therefore attempts an explanation of the origin of these features, on the one hand, and determine how close to or distant the speech of each set of bilinguals is from the other hand and RP on the other hand, owing to the supposed effect of affecting factors. The paper shows that RP, Cameroon Francophone English (CamFE) and the speech of Anglophone bilinguals share a sizeable number of segmental traits. However, CamFE and English-French bilinguals' speech differ significantly from RP, and thus have each traits that are peculiar to them alone. It was inferred that previously spoken language(s)-namely French and Pidgin English- and to a very minor extent age could better account for that. It is also shown that a number of RP renditions are attested in the speech of some bilinguals. Two factors were said to stand at the inception of this: formal instruction and notably motivation.

Key words: Bilingual Students, L2 phonology, Affecting factors, Ultimate attainment, CamFE

INTRODUCTION

Human societies are dynamic, so too are languages that they use. Languages follow twists and turns of societies that use them. With regard to this dynamism, certain languages have expanded and spread over different horizons. The English language, for instance, has spread its tentacles to all corners of the world to become a global language, world language, international language and world lingua franca (Kachru 1986, 1994; Bamgbose1998; Atechi; 2006; Crystal 1997; Jenkins 2000). Consequently, English is today spoken in virtually all settings, domestic and non-domestic alike. The language has thus assumed different statuses: as a native language (NL), second language (L2) and foreign language (FL)--these three statuses correspond to Kachru's (1986) concentric circles, namely the Inner, Outer and expanding circle.

It is in this line that this paper focuses on the movement of English away from the British Isles to exploitation areas which were not populated by British settlers like Nigeria, India and Cameroon, but where English was adopted for administrative purposes, functioning as a superstrate to the local languages spoken prior to it. In these areas, English is both second

language (ESL) and official language (OL). Cameroon's case was however peculiar in that it had undergone the influence of several European powers.

The territory known today as Cameroon was German protectorate from 1884 to 1916, before one of its parts was placed under French and the other under British administrations following the League of Nations' trusteeship. Each of the colonial powers administered its own share of the territory as part of its colonial empire till the independence of French Cameroon (East Cameroon) in 1960, followed by the independence of British Cameroon (West Cameroon) in 1961, which spawned a federal state often referred to as the Cameroons owing to its dual linguistic practice. Since the creation of the federal state of Cameroon in 1961 linguistic policy has been one of promoting official language bilingualism, at least in principle. This policy, spelt out in the constitution and its several amendments, makes English and French the official languages of the country with equal status and prestige. It is following this policy that English happens to be learnt in different acquisition patterns and for different functions in the country.

ENGLISH AND ITS VARYING STATUSES IN CAMEROON

The complexity of the linguistic landscape of Cameroon is well known by scholars. In fact, Cameroon is known to have more than 200 home languages. Simo Bobda & Fasse Mbouya (2005) give a figure of 260 languages, while Echu (2003) reports 247ethnic community languages and Ethnologue numbers 279 living languages. Meanwhile, there are Pidgin English (PE) used as a lingua franca and Camfranglais used as a language of in-group communication among the youths of urban Francophone areas. The linguistic landscape of Cameroon is further compounded by the existence of English and French mentioned earlier.

Owing to the unique political history of Cameroon, English and French assume different statuses for Cameroonians, depending upon their (regional) origin. What we are, however, concerned about in this paper is the various statuses of English in Cameroon, not French. English has traditionally assumed two statuses for Cameroonian speakers: as ESL for Anglophones and as EFL for Francophones. These different statuses imply that the pattern of acquiring the language differs between these two groups of users. However, Simo Bobda and Fasse Mbouya (2005) observe that some linguistic concepts long taken for granted in Cameroon must be revisited since they create a lot of confusion.

They, in fact, show that English has become a mother tongue to many Anglophone Cameroonians—mother tongue here refers to the language acquired first and that consequently one knows best. Atechi (2010) observes that the English language spoken in Cameroon can be placed on continuum ranging from something close to near native to something quite distant from it. Various studies also indicate that more and more Francophone Cameroonians pursue their academic careers in the Anglophone sub-system (Atechi 2006; Nkwain 2010; Essomba 2012, 2013). Given that for this category of learners, English serves as a medium of formal instruction, it can be argued that they use it as an L2. The same argument could be made for Francophones learning and specialising in English at university. Whatever the statuses of English to Cameroonian users are, L1, L2 or FL, it remains true that it is picked up in a way different from that of mother-tongue Englishes .That is, its pattern of acquisition is influenced by a number of factors at various levels thus making it distinct from L1 Englishes, notably RP.

THE PROBLEM

Several studies on CamE and CamFE agree that English-French and French-English bilinguals' spoken Englishes vary. The same vowels and consonants used in the same environments for

example are not rendered identically, making the English of bilinguals lack consistency and uniformity. The same observation can also be extended to word stress. Previous studies on CamE have attempted an explanation of this variety's features by such verbal strategies as overgeneralisation, spelling pronunciation and interference, to cite a few (Kouega 1991, 1999; Simo Bobda 1994; Atechi 2006). The present paper, on its part, tries out a novel explanation of CamFE's and CamE's speech traits. This is an entirely inferential reasoning, based on the analysis of speech samples of Bilingual Two students of the University of Yaounde I, which posits that the spoken production of these speakers is shaped by four factors, namely speakers' L1s, formal instruction, motivation and to some extent age. Before attempting this inferential explanation, it is worth reviewing literature on L2 phonology and ultimate attainment. The following section is devoted to this end.

In recent times, L2 phonologists have been keen on investigating the supposed factors mediating with ultimate attainment in novel language phonology. Investigated factors are either internal or external to the language learner. They are inter alia the learner's first language, language learning aptitude, motivation, formal instruction, linguistic universals, learner affective filter, personality, gender and age, to cite but a few. Only learner's first language (referred to as learner previously spoken language-s- in this paper, for it deals with multilingual subjects), motivation, formal instruction and incidentally age are given consideration in this paper.

THE ROLE OF LEARNER'S FIRST LANGUAGE OR NATIVE LANGUAGE

The role of learner's native language has been the interest of many works in the area of ultimate attainment in L2 phonology in recent times (Bunta 2005; Piske et al. 2001; Flege 1998, 2003). A debate has been one of determining whether or not the native language (NL) militates against phonology acquisition, and to what extent. Tarone (1987) argues that the influence of the NL on the acquisition of target language (TL) phonological skills is paramount. In her view, a contrastive analysis is sufficient to predict the difficulties brought about by the interference between the NL phonological forms and the TL phonological forms. Similarly, Keys (2001) argues that learners simply use NL sounds when producing the TL's. This could be due to the difficulty encountered in the production of TL sounds, or because the learner's L1 lacks a sound that the TL possesses.

Most English L2 learners will for example replace /θ/ and /ð/respectively with /t/ and /d/ or, in some non-native varieties of English, with /s/ and /z/. Works which describe CamE phonology clearly indicate that CamE speakers systematically substitute the alveolar sounds /t/ and /d/ for the interdentals /θ/ and /ð/ (Simo Bobda 1994; Atechi 2006, to cite just these).To explicate such phenomena, Major (1987) argues that interference processes affect the beginning of the acquisition process more than the subsequent stages, owing to the little knowledge of the TL the learner possesses in the early stages of acquisition.

Flege (1995) points out that in the early stages of second language acquisition, bilinguals manage to process the TL phonetic segments using the grid of their NL phonology. He however also explains phonological errors made by bilinguals by the differences in the inventory of sounds used by the NL and the TL.

Other important issues concerning the NL are those singled out by Flege et al.'s (2003) study on the effect of L1 use the on degree of ultimate attainment in L2 pronunciation among the Italian migrants in Canada. Participants were labelled (late-high, early-high, late-low and early-low). Late were learners who embarked on the study of English after the age of 15, and early were those who started learning English before 12. High and low are categories denoting the

amount with which the subjects continued to use their NL (Italian) in Canada? The results showed that those bilinguals, early and late alike, marked as low users of the NL proved more proficient in producing English /e'/. Late-high and early-high alike had a more noticeable foreign accent, as their Italian /e/ interfered with the English /e'/. Flege et al.'s (2003) study thus viewed L1 use as a predictor of foreign accent, that is, as a factor militating against ultimate success in L2 phonology. Meanwhile, L1 infrequent use was regarded as promoting the formation of L2 phonetic categories. Though Flege et al. (2003) acknowledge the impact of L1 on L2 phonology acquisition, Bunta (2005) however argues that L1 use has marginal effect as a predictor of foreign accent in L2 phonology development/attainment.

It is therefore in this light that this study aims at examining the impact of the L1 factor on the development of English phonology by non-native speakers in a non-native setting with a complex linguistic landscape as Cameroon. The aim is to see if the L1 (mostly regarded here as previously spoken language-s-) factor can be claimed to have the same effects on learners in a non-native set-up as it is claimed by the aforementioned works in native settings. In fact, there are a number of flaws in the studies of the abovementioned scholars as follows.

First, these inquiries were conducted in native settings but their findings were generalised to all learning scenarios, native and non-native settings alike. That is, the subjects in the studies were immigrants (non-natives) in the target-language community. In this regard, their daily use of the target language could have influenced the results yielded by these papers. That is, the subjects had somehow got exposed to the target language, and might have conversely lost something of their native languages; which could have favoured native-likeness in TL phonology on the one hand, and loss of NL accent on the other.

Second, all these studies assessed learners of TL who had been monolingual till their settling abroad. Admittedly, this (pre)monolingual status of informants could have accounted for the lessened effect of the L1 noticed by linguists, for the interaction between two linguistic subsystems may be easier than that between more languages.

In a multilingual setting like Cameroon, features of local languages, French and Pidgin English might have led to different results Simo Bobda (2009: 266) says, "the fossilization of interfering features is sometimes reinforced by the combined interfering effect of several languages" The point highlights the effects of languages owned by speakers besides English in this setting. Still talking about Cameroon's linguistic landscape and the consequent interaction between linguistic (sub) systems that occur here, Simo Bobda & Fasse Mbouya (2005:2122) say:

In this kind of landscape, Cameroonians live with far more languages than elsewhere, which means that there is more interaction between these languages than between languages in a different landscape. A typical Anglophone Cameroonian in Yaounde the capital, for example, speaks naturally and normally the following languages daily: one or more home languages (HLs), Pidgin English (PE), English and French.

A similar statement could also be made about a Francophone in Yaounde who, besides the use of English at school, grapples with French and at least one home language on a daily basis.Thus, more often than not, Cameroonians have to grapple with two official languages, besides local languages and Pidgin English. From this, it can be broadly summarised that the learner, in most cases, first develops an L1 which is followed by the first official language (OL1) then comes the second official language (OL2), which can be English or French as the case may be.

FORMAL INSTRUCTION

Formal instruction is another factor identified as a significant predictor of degree of L2 foreign accent (Thompson 1991; Elliot 1995; Flege 1995). Similarly, Bongaerts et al. (1995); Moyer (1999); Flege & Fletcher (1992) and Missaglia (1999) identify formal instruction as a predictor of improved performance in L2 pronunciation. Piske et al (2001:200), echoing Flege & Fletcher (1992), say "the number of years of English instruction" is a significant predictor of degree of foreign accent, that is, of ultimate success in L2 phonology. Bongaerts et al. (1995) and Moyer (1999) conducted a research among late learners who participated with specialised training in the L2 and experience of teaching undergraduates and found that they attained native-like success in German pronunciation. Missaglia's study compared two groups of German learners. One had received prosody-centred training and the other segmental-centred training. As expected, the group who had received segmental-centred training performed better in this than the group who had received prosody-centred training and vice versa.

The difficult question is however to determine the length, qualification and specialization which one needs to be able to attain success in L2 phonology. Moreover, in our view, formal instruction may be argued to bear correlates with other factors (such as learner's motivation, learning conditions/context and possibly learner's NL or even learner's language learning ability) to yield such results.

To sum up, although none of the works cited here provided an accurate amount of the influence of formal instruction on attainment in L2 phonology, they demonstrated that formal instruction aids acquisition in some significant way, while the lack of a specialised training in pronunciation can rather hamper ultimate attainment.

With regard to the Cameroonian set-up, English-French bilingual Cameroonians are exposed to English long before their French-English counterparts. They virtually get in contact with the language in school at around the age of 3-5 (nursery or primary school). They also move along the primary and secondary cycles mostly using English as a medium of instruction, and Pidgin English for everyday communication. After these two cycles, they continue using English as a language of education in the university. Thus they spend about sixteen years or more learning English. On the other hand, French-English bilinguals first get in contact with French both at home and at school. They study French from nursery or primary school to the university, before they are exposed to high-level English. Thus, as a result of the latter's relative late acquisition of English, their performance in pronunciation reportedly differs from that of English-French bilinguals in some aspects (Amah 2012; Essomba 2013). This suggests that formal instruction (probably coupled with other factors) may have impacted it, in some specific way as yet to be established. Yet this too is not conclusive because it is known that bilinguals exposed to the same amount of university instruction do not attain same results. This makes us consider the supposed role of motivation in shaping the learner's L2 phonology.

MOTIVATION

Many studies on the role of motivation in TL sound system mastery have come up with diverging findings (Suter 1976; Thompson 1991; Moyer 1999; Oyama 1976; Purcell & Suter 1980 and Elliot 1995). Piske et al. (2001, echoing Oyama 1976) and Thompson (1991), argue that motivation does not affect the degree of foreign accent. However, Suter 1976; Purcell & Suter 1980 and Elliot 1995 found motivation as a predictor of ultimate attainment in TL phonology. This is consonant to Bongaerts et al.'s (1997) study of 11 late Dutch learners of English as L2. Their study found that two of their subjects who were university teachers spoke English without a detectable Dutch accent. Meanwhile results of this inquiry revealed that five

of the eleven subjects obtained ratings comparable to those obtained by native speakers who made up a control group. The authors conclude that the high degree of zeal of these five Dutch learners of English to have accent-free pronunciation justifies their success.

Similar evidence in support of the role of motivation is that offered by Moyer's (1999) study on 24 English learners of German. Moyer found that these learners were very successful in German pronunciation due to their high degree of professional motivation (subjects had taught German to undergraduates). Nevertheless, motivation is not the only factor for success in producing TL sounds.

AGE

Although the age factor is only dealt with incidentally in this work, several works underscore age as a factor in ultimate attainment of pronunciation in L2. It is argued that age of learning, age of arrival to the TL community and chronological age are all connected to critical period hypothesis.

According to Piske et al. (2001), age of learning proves to be the most significant variable militating against or in favour of ultimate attainment in L2 phonology. They suggest that "the first ability to be lost [if learning were to start late] would be the one needed to develop a native-like pronunciation of an L2" (brackets are ours). They further argue that individuals who began acquiring an L2 before the end of the critical period would have a much better pronunciation compared to those who began after the end of it- this could be due to the loss of neural plasticity that occurs after the end of critical period. It is also construed that if L2 acquisition commences long after the NL system has been developed, there will be stronger NL influence on the TL hence, more foreign accent.

However, some studies argue that late learners have better performances than early learners (Piske et al. (2001). Snow & Hoefnagel-Hohle's (1977) compared older native English children and adults on the one hand and younger native English children on the other hand. Consequently, both older native English children and adults could imitate Dutch sounds in individual words better than younger children tested 6 weeks after their arrival in the Netherlands. Overall, irrespective of how conclusive these findings seem to be, they are subject to debate and do not necessarily match complex multilingual non-native settings like Cameroon. This study therefore sets out to, among other things, verify whether or not the age at which one started learning English impacted their achievement in novel language phonology—the case in point here is the differing ages at which Anglophones and Francophones start to learn English in Cameroon.

METHOD

This study was carried out on the basis of two tape-recorded tests: sentence reading style (SRS) for phonemic identification and production, and passage reading style (PRS) for confirmation of segments renditions.

A questionnaire was also used for determining the importance informants placed on good English pronunciation. To this effect, they were required to grade the importance of good English pronunciation on a continuum ranging from unimportant to extremely important.This methodological approach has been used by Piske et al. (2001); Suter (1976); Thompson (1991) and Moyer (1999). Informants were also required to give self-made estimates of their daily percentage use of English, offering a list of languages they spoke on a daily basis. This was done

in order to determine the languages the subsystem of English interacts with on a day-to-day basis.

Test1consisted of five sentences with target features to be read into a recorder for phonetic identification and production analysis. Test 2 consisted of a text containing words used in context being read into a recorder. It simply aimed at confirming renditions heard in test 1. The questionnaire and tests were presented to a population of 20 Bilingual Two students of the University of Yaounde I (10 English-French and 10 French-English bilinguals). Tests were conducted in a quiet room on the university campus.

For the listening procedure, target segments were chosen in the five sentences and the text and transcribed in Standard British English (SBE) pronunciation. Full transcriptions of all the five sentences were also established by referring to the dictionary. Then, we listened to each bit of sentence or text played thrice, and wrote down a phonetic transcription of what we had heard only the third time. Thus, an inventory of the (phonemic) speech traits of English-French and French-English bilinguals was made. The latter was to serve as a working basis for highlighting similarities and/or differences between these speeches and between each and SBE. The ultimate aim for carrying out this task was to trace back the influence of factors which had shaped speakers' pronunciation of English words. These data were thus grouped according to rubric and tabulated for convenience of presentation. The next section presents the findings.

FINDINGS

Results of the Questionnaire

Analysis of informants' answers to the question requiring that they indicate which languages besides English they spoke on a daily basis and their percentage use of English gave the following results. 2 English-French bilinguals said they spoke 20% English daily, four 4 said they spoke 50%, while 3 claimed to go up to 60% and only 1 indicated to speak 80% English daily. French-English bilinguals produced the following estimates: five 5 claimed to speak 20% English daily, 4 claimed to go up to 40% and 1 claimed to speak 60% of English daily. The table below summarises this data:

Table 1: Informants' self-reported estimates of daily use of English

% use of English	10%	20%	40%	50%	60%	80%	90%	100%
Engl.-Fren. Bil.	0	2	0	4	3	1	0	0
Fren.-Engl. Bil.	0	5	4	0	1	0	0	0

The above results clearly indicate that none of the speakers used 100% English daily. They all, to different degrees, spoke one or more languages besides English. These were notably Pidgin English, one or two home languages and French (for English-French bilinguals) and one or two home languages and French (for French-English bilinguals). It was thus evidenced from the above that the phonetic subsystem of English interacts with at least one language in the psycholinguistic apparatuses of these speakers.

When required to rate the importance of good English pronunciation to them on a continuum ranging from unimportant to extremely important, the following results were arrived at. 1French-English bilingual regarded good English pronunciation as unimportant, 7 looked at it as important and two 2 saw it as very important. The scenario was a little bit different in the English-French bilinguals group, as 4 of them saw it as unimportant, while 5 regarded it as important and only one 1 viewed it as very important. This process of rating the importance of good English pronunciation was relevant and accurate, for it offered a way to determine

informants' degree of zeal towards good English pronunciation. The above data are summarised in the table below:

Table 2: Importance of good English pronunciation to informants

Importance of good Engl. Pronunciation	Unimportant	Important	Very important	Extremely important
Fren.-Engl. Bils.	1	7	2	0
Engl.-Fren. Bils.	4	5	1	0

As the data above suggest, French-English bilinguals were slightly more motivated than English-French ones by three points, that is, 9 to 6. However, no informant indicated that good English pronunciation was extremely important to them. This hinted at the fact that many saw good pronunciation as useful but not indispensable for speaking English.

Results of recorded speech samples

This section presents and analyses traits specific to the speeches of bilinguals with a view to show how distant from or close to, they are from each other and each from RP.

Vowels

From the analysis of speech samples, it was revealed that both English-French bilinguals and CamFE pronounced words differently from one sub-variety to another and from each to RP. They were notably found to restructure RP vowels in slightly different ways, albeit common features were found to exist between these speeches. Striking processes here were amongst others, the restructuring of long monophthongs, the substitution of peripheral vowels for central ones, the restructuring of diphthongs and triphthongs as well.

As for long monophthongs, they were pronounced in a way as to making it almost impossible to distinguish them from their short counterparts in vocalic pairs as shown in the table below:

Table 3: Restructuring of long monophthongs in Bilinguals' speech

Feature	Word	CamE	CamFE	RP
/i/, /ɪ/	read, peat	/rit/, /pit/	/rit/, /pit/	/rid/, /pit/
	rid, still	/rit/, /stil/	/Rit/, /stil/	/rɪd/, /stɪl/
/u/, /ʊ/	school, soon	/skul/, /sun/	/skul/, /sun/	/skul/, /sun/
	could, full	/kut/, /ful/	/kut/, /ful/	/kʊd/, /fʊl/
/ɔ/, /ɒ/	John, along	/alɔŋ/, /dʒɔn/	/dʒɔn/, /alɔ̃/	/dʒɒn/, /əlɒŋ/
	morning, moral	/mɔniŋ/, /mɔral/	/mɔniŋ/, /mɔrəˑl/	/mɔnɪŋ/, /mɔrəl/

As pointed out above peripheral vowels were systematically substituted for central ones as shown in the table below:

Table 4: Restructuring of central vowels

Feature	Word	Subs.	CamE	CamFE	RP
/ə/	Peter, attain	/a/	/pita/, /aten/	/pitəˑ/, /əˑten/	/pitə/, /əteɪn/
	government, parted	/ɛ/	/gɔvɛnmɛn/, /partɛt/	/gɔvɛnmɛn/, /partit/	/gʌvmənt/, /pɑtəd/
	police, impression	/ə/	/pɔlis/, /imprɛʃɔn/	/pəˑlis/, /imprɛʃəˑn/	/pəlis/, /ɪmprɛʃən/
	parliament	/ia/	/paliamɛn/	/paliamɛn/	/pɑləmənt/
	the	/e/	/de/	/də/	/ðə/
/ɜ/	Her, interpretation	/a/	/ha/, /intapriteʃɔn/	/hœ/,/intœpriteʃəˑn/	/hɜ/, /ɪntɜprɪteɪʃən/
	attorney	/ɔ/, /œ/	/atɔni/	/əˑtœni/	/ətɜni/
/ʌ/	couple, just,cover	/ɔ/	/kɔpl/,/dʒɔst/, /kɔva/	/kɔpl/,/dʒɔst/,/kɔvəˑ/	/kʌpl/,/dɜʌst/, /kʌvə/

Diphthongs were either restructured to inexistent RP features or shortened to monophthongs. Restructuring mostly occurred in English-French bilinguals' speech, while shortening to monophthongs occurred predominantly in French-English bilinguals' speech. This is tabulated here below:

Table 5: Restructuring of RP diphthongs in Bilinguals' speech

Feature	Word	CamFE	CamE	RP
/eɪ/	take,	/tek/	/tek/	/teɪk/
	Rapist	/rapist/	/repist/	/reɪpɪst/
/əʊ /	going	/goiŋ/	/goin/	/gəʊɪŋ/
	Focused	/fokɔst/	/fɔkɔst/	/fəʊkəst/
/aʊ/	allow, outcome	/əˑlo/, /ɔtkɔm/	/alaɔ/, /atkɔm/	/əlaʊ/, /aʊtkʌm/
	About	/əˑbɔt/	/abaɔt/	/əbaʊt/
/ɪə/	realised, clear, era	/jirs/,/kliəˑ/, /ɛrəˑ/	/jiɛs/, /klia/, /ɛra/	/jɪəs/, /klɪə/, /ɪərə/
	behaviour, near	/biheviəˑ/, /niəˑ/	/biheviɔ/, /niɛ/	/bɪheɪvɪə/, /nɪə/
/ʊə/	ambiguous	/ambiguɔs/	/ambiguɔs/	/ambigjʊəs/
	curious	/kyriəˑs/	/kuriɔs/	/kjʊərɪəs/
/aɪ/	item	/aitɛm/	/aitɛm/	/aɪtəm/
/ɛə/	bare	/bɛ/	/bɛ/	/bɛə/
	Mary	/meRi/	/meri/	/mɛərɪ/

Triphthongs witnessed a process of internal gliding in both CamFE and CamE, making the medial element be pronounced /j/ or /w/. Besides, while /a/ was systematically substituted for the third element of the triphthong in CamE, a lengthened version of schwa stood for it in CamFE such that CamFE's thripthongs sounded more like RP's than camE ones. Minor instances of reduction to monophthongs were also heard occasionally. This is seen in the table below:

Table 6: Restructuring of RP triphthongs

Feature	Word	CamE	CamFE	RP
/eɪə/	prayer	/preja/	/prejəˑs/	/preɪə/
/aʊə/	hour, shower	/a/, /awa/, /ʃawa/	/awəˑ/, /ʃoəˑ/	/aʊə/, /ʃaʊə/
	power	/pa/, /pawa/	/paəˑ/, /pawəˑ/	/paʊə/
/aɪə/	trial	/trajal/	/trils/, /trajəˑls/	/traɪəl/
	unbiased	/ɔnbaist/, /ɔnbajast/	/ɔnbiəˑst/, /ɔnbajəˑst/	/ʌnbaɪəst/
/əʊə/	lower	/lowa/	/lowəˑ/	/ləʊə/
/ɔɪə /	royal, loyal	/rɔjal/, /lɔjal/	/lojəˑ/, /lɔjəˑ/	/rɔɪəl/, /lɔɪəl/

CamFE notably demarcates itself from English-French bilinguals' speech by the introduction of non-RP vowels like /y, œ/ and such nasal vowels as /□, □, □/. The high front vowel /y/ occurred in CuC-environments as in impunity, futility. Another very significant hallmark of CamFE was the occurrence of nasal vowels in CVnasalC-evironments. Similar vocalic renditions were also heard in camE, though with a slightly reduced degree of nasality: these were nasalised not nasal vowels, for the nasalised vowel was almost always followed by a nasal consonant distinctly pronounced. The following table summarizes this:

Table 7: Nasal and nasalised vowels in Bilinguals' speech

Feature	Word	CamFE	CamE	RP
/ɔ̃/	comfort, strongest	/kɔ̃fɔt/, /strɔ̃gɛst/	/kɔ̃mfɔt/, /strɔ̃gɛst/	/kʌmfɔt/, /strɒŋgəst/
	country, along	/kɔ̃tri/, /ə·lɔ̃/	/kɔ̃ntri/, /ə·lɔ̃/	/kʌntrɪ/,/əlɒŋ/
/ɛ̃/	members, intensions	/mɛ̃bə·s/, /ɛ̃tɛ̃ʃɪɔns/	/mɛ̃mbə·s/, /ɛ̃tɛ̃nʃɔns/	/mɛmbəs/, /ɪntɛnʃənz/
	sentence, impunity	/sɛ̃tɛ̃s/, /ɛ̃pyniti/	/sɛ̃ntɛ̃s/, /ɛ̃mpjuniti/	/sɛntəns/, /ɪmpjunətɪ/
/ɑ̃/	enhance, infants	/ɛnhɑ̃ns/, /infɑ̃ts/	/ɛnhɑ̃ns/, /infɑ̃nts/	/ɪnhæns/, /ɪnfənts/
	canceled, demanding	/kɑ̃sɛl/, /dimɑ̃diŋ/	/kɑ̃nsɛl/, /dimɑ̃ndiŋ/	/kænsəl/, /dɪmɑndɪŋ/

DISCUSSION OF FINDINGS

The analysis of the data tabulated above led to conjecture making as follows. Many participants in this study applied several speech strategies aiming for the production of English speech sounds. Speakers were found to restructure English monophthongs, diphthongs and triphthongs, giving them shapes and qualities not attested in RP. Besides, and interestingly enough, foreign sounds were found to be elbowing their way into the sound system of English as spoken by bilinguals. These were notably nasal and nasalised vowels in CamFE and CamE respectively. This was strong evidence of the interaction between the sound systems of French and English, for these nasal and nasalised vowels are hallmarks of the phonological system of French. However, no clear evidence of the influence of indigenous languages was found in this study. One language, besides, French, which was found as standing at the inception of most camE features tabulated above is Pidgin English. It was believed that since language use mediates very much with ultimate attainment (Flege ET al.2003), the high Pidgin English percentage use reported by most CamE speakers therefore constituted a valid basis for this view. Another point in case here is that in the literature, CamE, as spoken by non-English-French bilinguals, is not known to have nasal or nasalised sounds whatsoever, the influence of its speakers' ethnic languages notwithstanding. Thus, the fact that these are found in only the speech of bilingual camE speakers allowed for the point raised above. Also, the fact that most CamE speakers reported Pidgin English as the language with the highest daily percentage use allowed for tracing most of CamE's foreignness back to Pidgin English. The same reason is valid with regard to the effect of French upon CamFE.

Despite the overwhelmingly high number of instances of divergences described so far, a few speech-conscious participants were found to produce accurate renditions of the RP sounds. In effect, RP monophthongs (central and peripheral alike), diphthongs and triphthongs often occurred with no noticeable differences. Only two factors were found responsible for this state of affairs: formal instruction and motivation. But given that all the participants in this study had undergone the same amount of university instruction and none were physically defect, yet could not all produce RP accurate renditions, motivation seemed a more valid responsible factor for these renditions.

As it was pointed out earlier on in this study the age factor is discussed incidentally in this study. It was solely discussed in terms of AOL. In this regard, CamE speakers were identified as early learners and CamFE as late. CamE speakers were therefore expected to approximate RP far more than CamFE speakers. This, though, was not the case. Paradoxically, vowel reduction, which is a principal hallmark of native speech, was attested in only CamFE in the form of /ə·/. This led us to infer that AOL has no significant bearing on ultimate attainment in non-native

settings. The production of /əˑ/ was regarded as a logical outcome of formal training and motivation in English phonology.

CONCLUSION

This paper aimed at determining the extent to which factors like previously spoken languages, formal instructions, motivation and incidentally age account for variation in the speech of Bilingual Two students of the University of Yaounde I. A cursory look was first taken on the literature about the impact of these factors on ultimate attainment in L2 phonology. These presented age as a significant determiner of attainment. Meanwhile, L1 use and mastery were also seen to mediate with attainment. As concerns motivation and formal instruction, great disagreement remains amongst linguists as to what the roles really are. This study was carried out with intend to question some of the conclusions arrived at in the literature, critically looking at their procedures and the settings in which they were conducted (native settings). Unlike previous studies, this paper pointed to learners' previously spoken languages as the most relevant factor in shaping the phonology of English in a multilingual non-native setting like Cameroon. Besides this are motivation and formal instruction, which were found to favour success. The age factor was seen as playing no major role in either aiding or hindering success. This was so for CamE early learners who, according to advocates of critical period hypothesis in L2 phonology, were supposed to be more accurate in producing RP sounds, failed to meet this expectation. Conversely, it was impossible to determine exactly if the age factor hampered success in CamFE's speakers' production, for a certain number of them could produce RP sounds. Besides, their speech shared so much with English-French bilinguals' speech. Yet, no one factor could alone account for the speech traits described in this paper. This view meets Tarone's (1987) argument that "complex interrelationships of language, mind, body and society" must operate in tandem to determine the extent of L2 phonological attainment.

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Changing Demographics and Human Capital Development: Implications for Economic Growth in Nigeria

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Abstract

The three major drivers of demographic trends are fertility, mortality and immigration. The demographic position in Nigeria has changed in recent years with crude birth and death rates as well as fertility rates falling. As countries move through demographic trends, the size of the working age population increases. Such outcomes have economic consequences, which lead to increase in aggregate income level through expected increase in productivity level. This paper investigates the channels through which human capital development could stimulate economic growth during changing demographics. In our model, the growth of the economy is a function of productivity and productivity itself is a function of demographic trends. Thus, a Two-Stage Least Squares (2SLS) econometric technique was adopted. Our result shows that productivity and investment in education has an elastic impact on the growth of the economy.
JEL Classification: I115, I 125, J11, O15

Key Words: demographic trends, crude death rates, birth rates, fertility and human capital development

INTRODUCTION

Demographics are the quantifiable statistics of a given population which characterize that population at a specific point in time. They are referred to as the statistical data of a population especially those showing average age, income, education and vital social statistics of a human population such as the number of births or deaths. Demographic trends on the other hand describe the historical changes in demographics in population overtime. The three major drivers of demographic trends often identified in literature are: fertility, mortality and immigration. Demographic trends lead to demographic transition from high to low rates of mortality and fertility. They are expected to be accompanied by interactions between longevity and education. According to the UN projection, the population of the developed countries will fall by 3% by 2050 while that of the developing countries will rise by almost 60%. Population densities are rising from 59 to 94 per sq/km in the less developed countries. As regards global aging, Cohen (2011) points out that the median age of the world's population rose from 3 years to 26.6 between 1990 and 2000. This rapid aging reflects reduced fertility and longer life expectancy at birth which has increased from about 30 years in 1900 to more than 66years in 2000. Thus the ratio of old (65+) to young (0-4) will likely rise from 1:1 now to 3.3: 1 in 2050. The world dependency ratio (the ratio of the number of people aged 14 years and younger plus those ages 65 and over to the number of ages 15 to 64) peaked 1965 and 1970 and has been falling ever since. The dependency ratio is a measure of a country's age structure. According to

Cohen's compilation, individual's ages 15 to 64 are workers while others are dependants. However in the developing countries, youths often work while in the industrial countries, they are often in school. At the other end of the age spectrum, the economic burden imposed by aging population will largely depend on the health of the elderly. National longitudinal surveys indicate that chronic disability among the elderly could be declining as fast as 1.5% a year. Such a rate of decline would likely keep the ratio of the economically active aged 20 to 64 to the chronically disabled 65 high.

High rates of population growth are temporary consequences of the decline in mortality preceding the decline in fertility. The initial mortality decline is concentrated among infants and young children, thus concentrating its effect at the lower end of the age distribution. Also, the subsequent fertility decline has an effect on the age distribution that is, naturally, entirely concentrated at age zero. The combination of these two forces introduces a bulge into the population pyramid. Its leading edge is created by the decline in infant and child mortality and its trailing edge by the decline in fertility. Overtime, the bulge ages and moves from being concentrated among young people to being concentrated at the prime ages for working, saving, reproduction and eventually, to being concentrated at the years of old age. The youths and the old consume more output than they generate, unlike the working age individuals, whose contribution to output and savings tends to be more than commensurate with their consumption. The value of output per capita which is most widely used indicator of economic performance tends to be boosted when the population of working age individuals is relatively large. This tends to be depressed when a relatively large part of the population consists of young and elderly dependents (Higgins, 1998). Also, a fall in the youth dependency ratio permits schooling per child to rise, adding further to future economic growth. As the population age distribution changes over the course of demographic transition and beyond, levels of per capita income will change. This reveals the patterns of economic growth that have proven to be evident in cross- national data. It is noteworthy however, that demographic change which led to high rates of income growth was what became known as the East Asian Miracle. From 1965 – 1990, the working age population of East Asia grew nearly ten times faster than the dependent population. Changes in age distribution of the population can have important economic effects which reflect the influence of changes in the number of working age individuals per capita and shifts in behaviour such as increased savings and greater investment in schooling per child as both desired and completed fertility fall. These effects are determined by government policies, institutions and conditions that determine an economy's capacity to equip its people with human and physical capital and to absorb them into productive employment (Kelly and Schmidt, 1995). These findings confirm that there is strong relationship between economic growth, development and population matters.

Recent literature on the effects of population change and economic growth have two key features in common which conclude that reducing the current rate of population growth does not lead to a corresponding reduction in the current rate of the labour force growth. Also, there is the assumption that links between population and income proceed in one direction, that is, from the former to the latter. The work of Bloom and Fink (2009), confirms clearly that population change affects income growth and changes in income affect population growth mainly through their effect on fertility. These results however confirm the importance of rapid and pronounced demographic change in East Asia on the region's economic success. The population structure in Nigeria for over 40 years after independence has experienced slow demographic transition accompanied with high fertility and mortality rates which resulted in high ratio of children in the population. The demographic position is however changing in recent years with crude birth and death rates as well as fertility rates falling. This trend is

however expected to continue for the next few decades, which is an indication that the nation is going through a demographic transition (United Nations, 2007). As countries move through demographic trends, the size of the working age population increases. Such outcomes have economic consequences which lead to increase in aggregate income level through expected increase in productivity level. This is possible through investment in human capital which enhances accumulation of inputs in the form of knowledge and skill acquisition. Changes in education acquisition have a substantial impact on fertility patterns and demographic composition. Fertility differentials exist among skilled and unskilled individuals. This has to do with education acquisition. Accumulated education acquisition affects fertility decisions of individuals and the quantity-quality trade-off. Increased technological acquisition, improved wages brings about improvements in life expectancy. These induce incentive to acquire human capital. The Human Development Index (HDI) measures a country's overall achievement in its social and economic dimensions- based on health of people, their level of education attainment and standard of living. Available data indicate that Nigeria with HDI of 0.0448 in 2004 was ranked 159 on the global ranking of 177 countries, which places Nigeria as one of the low human development countries. However between 2005 -2012, the HDI figures for Nigeria rose from 0.434 to 0.471, but fell below sub-Saharan African countries in most of the years and very much below the world average. The basic indicators of human development: HDI – Health, HDI- Education and HDI – Income, ranged between 0.404 and 0.510. The latest HDI for Nigeria in 2013 is 0.482, placing the country in 153rd position out of 187(UNDP, Human Development Reports, Various Years). From the forgoing statistics, it is clear that human development condition in Nigeria is far from the expected.

With this background, this paper investigates the effect of human capital development on economic growth during changing demographics. The study employs time series data for Nigeria for the period of 1990-2010. It is applied to a Two-stage least square (2SLS) which is a special case of instrumental variable regression (Oyinlola, 2012). The paper is structured in seven sections as follows respectively: Introduction, Nigeria's Demographic and Economic Profile, Demographic trend/ Dividend, Brief Theoretical and Empirical Review, Human Capital, Demographics and Economic Growth - The Nexus, The Model, Results, Conclusion and Recommendations.

Nigeria's Demographic and Economic Profile

Nigeria is the most populous country in Africa with a current estimated population of about 175million (CIA World Fact book). It is characterized by a high growth rate of about 3 percent per annum. As a result, the population has increased from about 57 million people in 1963 to 140 million (more than double) at the time of the 1991 census. By 2012, the data collected by the National Bureau of Statistics indicate that the total population of citizens in Nigeria was around 166.2 million which increased to an estimated 175 million in 2013(Makinwa – Adebusoye, 2014). By 2014, however, the population is estimated to have increased to 178.5 million people. The United Nations project that the overall population in Nigeria will reach 210 million by 2025 and about 390 million by the end of the year 2050 despite the declining fertility rates. Meanwhile, the Census Bureau of the United States predicts 402 million people for Nigeria by the end of 2050 and that this will reach 730 million by 2100. The entire population of Nigeria accounts for about 2.5% of the entire World population. Nigeria is the 7th most populous in the world, with about 33.3% of this constituted by young people. Nigeria has the largest labour force (11th in the world). Further UN projections indicate that most of Nigeria's demographic growth will be in people of working age (15-64). Dependency ratio (the number of children and elderly divided by the number of working age adults) declined from 83 dependents per 100 workers in 2010 which is estimated to decrease to only 50 dependents per 100 workers by 2050. Nigeria has over the years experienced high mortality rate due to

rampant HIV/AIDS epidemic in the country. This has improved significantly over the last 15-20 years. However, compiled/ estimated data from UNDP (2011) indicate that crude death rate is falling in recent years and has the tendency to continue to fall ranging from 21.1, 13.7 and 7.7 deaths per thousand population between 1970 -2015 and estimation covering 2015-2050 respectively (World Population Review, 2014).

Life expectancy in Nigeria is unfortunately the lowest in West Africa. For both men and women, life expectancy at birth ranged between 46years and 52 years from 1980 to 2013 (UNDP, 2013). This low age can be attributed to the fact that Nigeria has a lot of health issues to contend with. Such include: HIV/AIDS epidemic, child and maternal mortality rate coupled with the widespread growth of the polio virus. As regards infant mortality rate, over several decades, the under-five mortality rate like the Total Fertility Rate has remained high though slowly decreasing. It decreased from 201 child deaths per 1,000 live births around 2003 to 128 child deaths per 1,000 live births around 2013. This is an indication that Nigeria is far behind the target set by the Millennium Development Goals (MDG) and farther behind the Policy on Population for Sustainable Development (2004) of reducing, by 2015, the under-five mortality to 45 deaths per 1,000 live births. Maternal mortality is also a great issue in Nigeria. Nigeria's current fertility rate of 5.5 births per woman is much higher when compared with that of other African and developed countries (Makinwa- Adebusoye, 2014). Nigeria's demographic trends are of particular importance because Nigeria is expected to make up 3% of the total world population and 14% of Africa's population by 2050. According to the Census Bureau of Population, this technically means that 1 out of every 43 people in the world is from Nigeria. Nigeria has the capability of being a major player in the global system and a particularly important actor on the African continent if it develops its human capital. The re – benchmarking/rebasing of Nigeria's GDP has placed the country as Africa's largest economy and has exposed its investment potentials to the world. The exercise reveals that the nominal GDP in 2010 was reversed from 33.9 trillion naira to 54.2 trillion recording an increase of 59.5%. In 2011, GDP was recorded as 34.4 trillion and this was reversed to 63.3 trillion naira, an increase of 69.1%. For 2012, the GDP was reversed from 40.5 trillion to 71.1 trillion, recording an increase of 75.58%. Estimates show that for 2013, the GDP was reversed from 42.3 trillion naira to 80.3 trillion, recording an increase of 89.22%. Industry on the other hand when rebased dropped from 46.08% to 25.81%, while service has more than doubled to over 50% from 23% (World Bank, 2014). It is however clear from this statistics that the structure of the Nigerian economy has changed significantly. The unanticipated rise in the Nigerian population over the last five years has been described as a potent threat to the future of the nation's economy unless properly managed by the federal government. A large uneducated working age population will increasingly put a country at risk of political and economic instability.

Demographic Trend and "Demographic Dividend"

The demographic dividend is the accelerated economic growth that may result from changes in a country's population age structure. This has to be accompanied with strategic investments in public health, education, family planning, labour market flexibility /expansion, openness to trade and savings, appropriate economic policies and governance. Shifts in age structure are driven by a transition from people living short lives and having large families to live long lives and have small families. These changes usher in better living standards for families and higher incomes per person, based on the assumption that the right policies are in place. This gives rise to a growing working age population which increases incomes per person and spurs a country's total economic growth. Evidence from literature indicates that East Asia and Latin America are at the forefront of demographic transition. This trend has however continued even

in subsequent years. Demographic dividend is derivable from demographic transition via favourable age composition of population, that is, larger percentage of the population falling within the working age (15-64). Demographic transition offers policy makers a window of opportunity which enhances economic and social development. Demographic transition via population growth has a large statistically significant negative effect on per capita income (Bongaarts and Casterline, 2012).

The increase in the working age share results from a lag between declines in mortality and fertility, creating a "baby boom" generation, which tends to be larger than others in the population. It should however be noted here that the baby boom generation must be fed, clothed, housed and educated when it is young and even as it grows. This places substantial burden on families and the wider society. However the good news here is that, as this generation enters its working years, and number of dependents decline, due to falling fertility, there is potential for a sizeable boost to economic growth. The dividend from a favourable demographic transition requires good governance, effective public policies accompanied by an enabling environment.

Nations undergoing demographic transition have the added advantage of "demographic dividend" derived from favourable age composition of population. Such window of opportunity is vital to the economic and social development of their countries. Labour market rigidities common in many developing countries, such as rules governing the hiring and firing of workers, fixing of minimum wage rates that discourage hiring new hands in production and training the existing workers, can impede on the potential demographic dividend. Another important component of demographic dividend is long-term fertility rate decline which opens the window of opportunity for the dividend. Access to voluntary, right –based family planning coupled with improved health and decreased desire for family size, leads to fewer children and a growing share of working – age adults. The shift in the age structure that comes with investments in family planning ushers in the window of opportunity of a demographic dividend (Goujon, 2006).

Demographic dividend is delivered through a number of mechanisms: (i) Labour Supply: (a) when the generation is between 15 and 64, it is more likely to be working thus lowering the ratio of dependants to non- dependants. During the peak working years of 25 to 29, this effect is especially strong since the labour supply is substantial and provided the labour market absorption capacity is high, per capita production of worker increases. (b) As family size declines, women are more likely to enter the labour force. Such adult women are however assumed to be educated and brought up in small families. The assumption here however is that their education increases their productivity in the labour market. (c) Demographic transition also encourages the growth of savings thus increasing the country's capability for investment and growth. The working population tends to contribute to a high level of economic output and also higher level of savings. People tend to save between the ages of 40-65 when they are less likely to be investing in their children but rather prepare for retirement. (ii)Human Capital: Demographic transition has significant effects on investments in human capital. Demographic transition along with educational investment that creates jobs for the growing working-age population can also encourage a demographic dividend. The size of the dividend depends on how fast the support –ratio, that is the proportion of working people to non-workers increases. Related to this is the investment in education of youth which contribute immensely to demographic dividend. This implies that, countries all over the world are expected to have large numbers of people entering the workforce each year. Thus, investing in the education of youths through education is critical to seizing the demographic dividend.

Demographic transition begins with changes in mortality that results in a population that lives longer and stays healthier. A longer life expectancy causes fundamental changes in the way that people live. Other factors such as attitude to education, family retirement, the role of women at work are all relevant to longer life expectancy. The positive correlation between education and earnings cannot be overemphasized here. As life expectancy increases, parents are likely to choose to educate their children to more advanced levels. On the other hand, healthier children have greater potential to experience cognitive development per year than their less healthy counterparts. (UNDP, 2013).

It is important to note that, since women and girls are 50% of the world's population empowering them is essential for achieving the demographic dividend. With women and girls having access to education, economic opportunities and rights, countries benefit from increased economic growth and development. Growth in income per capita, with decline in fertility rate as predicted by the UN medium fertility variant, per capita income could be boosted by 6.5% in Nigeria and almost 27% in Ethiopia (UNDP, 2013).

The standard UN definition which is also used by the International Labour Office, classifies "youth" as those between 15-19 years (teenagers) plus those 20-24 years, that is, the youths are those between 15-24 years old (ILO, 2012). The definition however often varies from country to country. Recent data from the ILO (2012) showed that globally, one person out of every five is between the ages of 15 – 24 years. Altogether, there are over 1.2 billion youths in the world, majority of them (about 90%) live in developing countries, with 60% in Asia, and 17% in Africa (14% from sub-Saharan Africa- SSA and 3% from North Africa). While a youthful population is an important asset for innovation and creativity in economies and society, to realize this 'youth dividend', young people have to be productively employed and integrated into society (ILO, 2012).Low employment rates and earnings in SSA is another barrier to exposure to a demographic window. Countries such as Nigeria, Kenya and South Africa have very low economic contributions to youths. This has been identified in low support ratios, poor employment opportunities for youths, low female labour participation accompanied with low levels of labour income among African Youths.

Brief Theoretical, Empirical and Methodological Review

Appleton and Teal (1998) examined Africa's achievements in the formation of human capital, and its impact on economic growth and welfare in a cross sectional analysis. The authors noted that even though Africa has made commendable efforts in raising the literacy rate and school enrolments and improving health, the human capital formation in the case of both education and health in Africa are still low comparable to those in other developing nations. Mankiw, Romer and Weil (1992) re-examined the implications of the Solow growth model for convergence in the standard of living of nations. Using a natural regression model fitted into data for the period 1960-1985 comprising of 98, 75 and 22 countries for 3-samples respectively, the evidence shows that international differences in income per capita is best understood using the augmented Solow growth model. In this model, the authors suggest that differences in savings, education and population growth explain most of the variations in cross-country per capita income. This model has several implications for the entire economy. Contrary to Romer's suggestion, there are no substantial externalities to the accumulation of physical capital; it receives its share of social returns. Despite the presence of no externalities, the accumulation of human capital has a larger impact (the elasticity is one) on income per capita than the textbook Solow model implies (the elasticity in the textbook model is one half). Therefore, a higher savings rate leads to higher income in steady state, which consequently leads to higher level of human capital even if the rate of human capital accumulation is

unchanged. Also, population growth has a larger impact on per capita income than the textbook model suggests; in both models higher population growth lowers income and total factor productivity, however, the degree is quantitatively different. In the textbook Solow growth model, the elasticity of income per capita with respect to population growth is -0.5, however, in this augmented model, the impact is -2. In contrast to the endogenous growth models, the study predicts that countries with similar technologies and rates of accumulation and population growth should converge in income per capita. However, this convergence occurs more slowly than the textbook model implies. The textbook Solow model suggests that the economy reaches half-way to steady state in about 17 years while this model suggests about 35 years. In summary, it is widely acknowledged in theory and empirical analysis that the quality and quantity of education of a country explains the per capita income divergences of a country, leading to the variation across country growth and development experiences. Based on the submission above, the underlying theoretical background for this study is based on the Solow – Swan neoclassical growth model. The model assumes the production function is Y = F (K, L) where Y = income, K =capital and L=labour. With the assumption of constant returns to scale, we have the production function re –written as Y/L =F (K/L, l) = L.f (K), where Y = Y/L, which is output or income per worker. K = K/L, which is capital/ labour ratio. The production function can thus be expressed as y =f (K). In the Solow –Swan neoclassical model, saving is a constant fraction, s, of income. Saving per worker is sy and since income equals output.sy = sf (k). The investment required to maintain capital per worker K, depends on population growth, and the depreciation rate d. Since the assumption is that investment required to maintain capital per worker K, depends on population growth, and the depreciation rate, n, the capital stock grows at the rate of n, the capital stock grows at the rate n, k to provide capital to the growing population.

Since depreciation is a constant, d, percentage of the capital stock, d. k is the investment needed to replace worn-out capital. The depreciation investment per worker, d.k is added to nk, the investment per worker to maintain capital – labour ratio for the growing population. Thus: (nk + dk) = (n +d) k, which is the investment required to maintain capital per worker. The net change in capital per worker (capital – labour ratio) over time is the excess of saving per worker over the required investment to maintain capital per worker. Hence, k = sf (k) – (n+d)k. This is the fundamental equation for the Solow Swan neoclassical model, where the steady state corresponds to K = 0. The economy reaches a steady state when sf (k) = (n +d) k. The model therefore concludes that the growth rate of output in steady state is exogenous and is independent of the saving ratio and technical progress. Also, if the saving rate increases, output per worker increases through increase in the capital per worker, but the growth rate of output is not affected. Finally, growth in per capita income can either be achieved by increased saving or reduced rate of population growth. This will hold if depreciation is allowed in the model.

Other scholars have identified the fact that changing age structure, health, skill level(represented by formal education), fertility and mortality rate jointly characterize a person's human capital and influence his/her productivity. Bloom and Williamson(1998),Bloom and Canning(2000), emphasized the fact that the realization of the demographic dividend in East Asia was possible since social, economic and political institutions and policies were in place which allowed them to realize the growth potential created by the transition. The authors introduced the neoclassical growth model and applied the conditional convergence model with adequate considerations given to growth of population, growth of workers, growth rate of real gross domestic product, average years of secondary schooling in the initial period, life expectancy, a measure of natural resource abundance, degree of openness, an index of individual quality, average government savings

and so on. The authors ended up to consider three channels through which population dynamics affect economic growth. These are: labour market effects, effect on savings and capital accumulation and an effect on educational enrolment and human capital

Using micro – data from 48 developing countries, Vogl (2014) found out changes in cross sectional patterns of fertility and child investment over the course of the demographic transition. His result support the model in which rising skill returns lowered the minimum income at which parents invest in education. Bloom, Canning and Fink (2009) in their own study examine the links between demographic change and economic growth in Asia. Results indicate that overall rate of population growth had little effect on economic growth. However, changes in life expectancy, age structure and population density have significant impact on growth rates. In an analysis of micro - demographic data from a rural community in Nepal, Axinn (1993) indicate that children's schooling exerted a strong influence on parents' fertility preference and behavior. Meanwhile, in a different context, Ogawa and Retherford (1993), in a survey conducted among women in Japan cited concerns of women on economic and psychological costs involved in taking fertility decisions and educating children. Bloom and Williamson, 1998, Bloom, Canning and Malaney, (2000), identified the fact that the growth rate of the working population not only determine the accounting effect, which is (the difference between the growth rate of the working age and the total population) but also influences the behavioral component (the productivity term as presented by the growth rate of output per worker). Furthermore, Kelly and Schmidt, Bloom and Williamson (1998) submit that there is a positive effect of the economically active population on growth in output per capita. They found a significant interaction between demographic variables and policies. Good policies lead to higher economic growth and the impact of demographic change is greater when institutions are of higher quality.

A positive relationship has been found between women's education and demographic outcomes in a comprehensive review by Jejeebhoy (1996). In a related research, Oni (1985) conducted a study on urban Nigeria and recorded a higher fertility among more educated women than the less educated women. Subbarao and Raney (1995) utilizing a multi- sectoral approach to the effect of education on changing demographics observed that educational expansion and reproductive health services exert a powerful effect on fertility and infant/child mortality. In addition, simple correlation studies have established that per-capita output growth is influenced by various dimensions of demography (population growth, size and density) Kelly and Schmidt (1995).

Empirical evidence supporting the interaction between fertility, education and economic growth on Tunisia has been investigated by (Frini and Muller, 2012). The study actually attempted to analyse the impact of fertility transition on education and economic growth. The key explanatory variables include: real GDP per capita, infant mortality, contraceptive use ratio and students' enrolment at all levels. With a multivariate cointegration analysis being applied to time series data, a long term triangular relationship was established. This implies that education is found to trigger fertility transition both in the short and long-run. Furthermore, the variance decomposition and impulse response function indicate that the fertility transition has produced a feedback effect on both education and economic growth.

This study however takes a different dimension entirely by investigating the effect of human capital investment on economic growth during changing demographics. This is an entirely new dimension to the discussion on the subject matter.

Human Capital, Demographics and Economic Growth – The Nexus

Adam Smith, a foremost classical economist referred to human capital as the talents and skills acquired by the residents of a country. This he sees as part of the country's capital stock since it increases the wealth of the nation and citizenry. Thomas Malthus on the other hand, in his dynamic growth model proceeds to build on the submissions of Adam Smith by emphasizing the fact that, when incomes exceed the equilibrium level, mortality and fertility rate rises and vice-versa. The neoclassical economists, Solow, (1997), Swan (1956), Schultz (1961), Arrow (1962), Becker, (1962 and 1964) came up to introduce other dimensions of human capital and economic growth. They emphasized the fact that the rate of growth of any economy is a function of technological accumulation; ignoring the fact that technology is driven by human capital while it has no capacity to translate to economic growth on its own. From these analogies, human capital remains the bed rock of sustainable growth and development. Schultz (1961) in his own submission argues that there are five ways of developing human capital. Such include: (i) the provision of health facilities, which affect life expectancy, strength, vigour and vitality of the people. (ii) The provision of on - the-job training which enhances the skill of labour force. (iii) Improving education at primary, secondary and tertiary levels. (iv) Enhancing the study and extension programmes for the adults. (v) Provision of adequate migration facilities to individuals adjusting to better job opportunities.

Also, the empirical evidence of Romer (1986), Lucas (1988) corroborates the fact that human capital is a major driver of economic growth and macroeconomic performance of any nation. Overtime, various theorists have proved that humans are the most important and potential source of productivity and growth in a nation. Human capital is a source of both increased productivity and technological advancement. This implies that innovations, equipment and technology are engineered by human beings made realistic by creative thinking, which is a product of the human mind. It is important to note that, each of the components of human capital; education and health has been proven to have a remarkable impact on economic growth. Education has strong impact on labour productivity, the rate of innovation, healthy living and technological improvements. Increased stock of knowledge raises productivity in both firms and households. Increased productivity is transmitted to increased wages, improved access to health products which ultimately leads to higher growth and a general improvement on the aggregate living standard.

As regards the health component of human capital, its availability generates more earnings which accumulate into wealth in the long run. Increase in the aggregate stock of health determines the total amount of time to be spent earning money. The stock of health depreciates with age and therefore has to be increased and improved by continuous investment. This is where government's intervention is required especially in an economy that is not capitalistic in nature. As health improves growth, by making more market time available for the workers to generate income, it also results in a reduction in the mortality rate and reduces fertility rate. This contributes grossly to the voluntary population control. Ranis (2004) indicate a 2 – way relationship between economic growth and human development (which he used interchangeably with human capital. According to him, the levels of economic growth and human development are mutually reinforcing, either leading to an upward spiral of development or a poverty trap. Pritchett (1997) explained this further by identifying the fact that rapid productivity growth was never sustained in the poor regions of the world due to the fact that although countries have equal access to the same stock of knowledge, there are gross differentials in their utilization.

Human capital like physical capital is an important factor input which can be accumulated overtime to increase the economic productive capacity/ potential (Lucas, 1988). Human capital

accumulation is ultimately linked to other development phenomena such as income distribution and demographic transition. Human capital accumulation reduces young adult mortality, which in turn induces lower fertility. Furthermore, lower fertility reduces the cost of human capital investment, and thus parents increase their human capital investment per child .This leads to a vicious cycle in which human capital growth leads to lower fertility and more rapid human capital growth. Investments in girl's education play important role in promoting demographic changes that enhances slower population growth. Increased education increases the mean length generation which has to do with the amount of time a cohort of women take to reproduce itself. Better utilization of public health and family planning services, higher infant and child survival rates /reduced fertility preferences are important outcomes of increased investment in education. Societies characterized by high mortality and fertility levels for instance typically have social structures and economic incentives that encourage high fertility

Educational expansion/acquisition influences the number of births within a family and also determines the timing and desirability of child bearing. We proceed to introduce the link between maternal education and child survival. This has been well documented in literature. The line of reasoning is that educated mothers compared to their uneducated counterparts attach a higher value to the health and welfare of their children. A strong relationship exists between maternal education and child health after controlling for socioeconomic status. An association between education and knowledge of health interventions has also been identified in literature. Such interventions include immunizations (controlling infant mortality) and contraceptive use (planning fertility). Education is viewed as promoting openness to new ideas not only about mortality and fertility but also about family roles and structures (Caldwell, 1982).

Stylized Facts on Government Expenditure in Education and Health in Nigeria (Budgetary Figures)

If government investment in education and health is key to sustainable growth as argued in economic literature, then it is worthwhile reviewing the trend over the years. It is clear that the Nigerian government has not met up with the 26 per cent minimum budgetary allocation to the education sector as recommended by UNESCO. The education sector has been grossly under-funded in Nigeria. The 2012 budgetary allocation of N400.15billion representing 8.43 per cent of the total budget contrary to the UNESCO recommendation is abysmal. According to a breakdown of the 2012 budget, 82 per cent and 18 per cent were allotted to both recurrent and capital expenditure respectively. While Nigeria spends less than 9 per cent of her annual budget on education, Abayomi (2012) reveals that Botswana spends 19 per cent, Swaziland 24.6 per cent; Lesotho 17 per cent, South Africa 25.8 per cent, Cote d'Ivoire 30 per cent, Burkina Faso 16.8 per cent, Ghana 31 per cent, Kenya 23 per cent, Uganda 27 per cent, Tunisia 17 per cent, and Morocco 17.7 per cent).

From 1980 till date, empirical data show that government investment in education and health in Nigeria has been on a continuous decrease in real terms. For instance, in 1980, government expenditure in education was N3123.26m. From 1982-1999 (a period of twenty years) real government expenditure in education decreased continually in this manner; -36.5, -7, -17, -13.5, -4, 25.4, -41.7, 38, 64.1, 8.93, -42.65, -47.04, 174.38, 12.56, 7.08, 20.50, -2.44, and 3.97 (figures are in percentages). From 2000-2012, however, the allocation recorded a gradual percentage increase in the following order; 4.67, 10.03, -28.87, 88.18, -29.39, 18.04, 22.85, 33.73, 8.48, 1.8, -19.44, 4.93, 46.11, and 22.47% respectively. In 2000, government expenditure in education increased by four percent, it also recorded a continuous increase from 2004-2008, however, it took a down-turn in 2009 and grew again from 2010-2012; 5%,

46%, and 23% respectively. Given the continuous increase in inflation and sectoral price differences, while the government ensures a continuous increase in the budgetary allocation to both the education and health sectors, in real terms, this allocation have been on a continuous decrease. Empirical evidence in education expenditure shows that the government is far away from complying with the 26% minimum budgetary allocation to education as advocated by UNESCO.

Heads of State in Africa met from 26-27 April 2001 at a special summit to address the exceptional challenges of HIV/AIDS, tuberculosis and other related infectious diseases. At this meeting, the governments committed to allocating at least 15% of their total annual government budgets to the health sector. Since 2001, a number of countries have made progress in increasing their domestic funding towards the Abuja 15% target. The WHO states that only Rwanda and South Africa have reached 15%, while the African Union Commission reports that six AU member states have met the 15% benchmark – Rwanda (18.8%), Botswana (17.8%), Niger (17.8%), Malawi (17.1%), Zambia (16.4%), and Burkina Faso (15.8%). The health sector was not spared either, in 1980, the government allocated N609.61m in real terms to the sector. From 1981 to 2012, the sector recorded an initial percentage growth of 595.6% and gradually decreased in the following manner; -23.3, -18.47, -15.06, -4.32, 26.73, -42.83, 17.05, 44.4, 2.14, -39.22, -68.33, 95.48, -12.96, 15.62, 5.74, -7.34, -19.11, 35.53, -20.40, 97.55, 45.32, -38.88, 50.65, 15.06, 43.11, -4.21, 13.61, -4.06, 9.81, 30.80 and 34.27 respectively.

Economic Growth in Nigeria (GDP per worker employed)

There are various indicators of growth and many authors have chosen them based on various reasons. Generally, the various indicators could be compressed into Gross Domestic Product (GDP) and Gross National Product (GNP). Conventionally, GDP is most popularly used; however, the form of GDP used depends on the objectives set to be achieved by the author and the nature of the work carried out. In various works we see researchers using GDP nominal values, real GDP, GDP per capita and most recently GDP per person employed, which is in line with Durlauf, Johnson and Temple (2004) and Jones (1997) that it is a better measure of productivity and growth. Therefore, in this analysis, the focus is on economic growth measured by GDP per person employed. In the early years of the review period, the economy barely grew. From 1981-1999, the economy recorded almost consistent negative growths for a period of fourteen years. For instance, in 1981, the economy recorded a negative growth of -11%, -3% in 1982, -9% in 1983, -6.2% in 1984, -0.1% in 1986, -0.2% in 1987, -3% in 1991, -2% in 1992, -0.7% in 1993, 2% in 1994, 3% in 1995, 0.1% in 1997, -0.12 % in 1998, and 2.3% in 1999. Not until the early 2000s till date did the economy grow consistently; it recorded scanty growth of 7% in 1985, 4% in 1988 and 1989 respectively, and 2% in 1990 and 1996 respectively.

The Model

$LnRgdpt = \beta 0 + \beta 1 lnGdpwt + \beta 2 lnRget + \beta 3 lnRght + e$

$LnGdpwt = \beta 0 + \beta 1 lnTset + \beta 2 lnLet + \beta 3 lnLfpt + \beta 4 lnFrt + \beta 5 lnImrt + \beta 6 lnStjt + \beta 8 lnInft + \beta 7 lnRght + VT$

Where:

Rgdp = Real GDP

Gdpw = GDP per worker (a measure of productivity)

Rge = Real Government Expenditure on Education (a measure of human capital)

Rgh = Real Government Expenditure on Health (a measure of human capital)

Tse = Total School Enrolment

Le = Life Expectancy

Lfp = Labour force participation

Fr = Fertility rate

Imr = Infant Mortality Rate
Stj = Expenditure on Science and Technology Journals
INF = Inflation
In our model; the growth of the economy is a function of productivity (GDPW) and investment in human capital (RGE & RGH) and productivity itself is a function of demographic trends. All secondary data utilized in this study were basically obtained from National Bureau of Statistics, 1990-2010 and World Bank Publications. A fundamental assumption of OLS is that the regressors are uncorrelated with the disturbance term. Should this assumption be violated, both the OLS and weighted least squares are biased and inconsistent. Where this violation is observed, the standard approach to redeeming the situation is the application of instrumental variables. The basic idea behind instrumental variables is to "find a set of variables, termed instruments, which are both correlated with the explanatory variables in the equation and uncorrelated with the disturbances". The instruments are used to eliminate the correlation. The Two-Stage Least Square (2SLS) is a special case of instrumental variable regression (Oyinlola, 2012). Having observed the endogeneity of productivity in the model, the researcher has chosen to use the 2SLS econometric technique while the following demographics are specified as instruments; LNTSE LNLE LNLFP LNFR LNIMR LNSTJ LNINF LNRGH (see table 1)

2SLS DIAGNOSTICS

a) Instruments Validity Tests – J Statistics
   The instrument rank is the number of instruments used and the accompanying test is the J-statistics (along with its p-values).The J-Statistics is used as a test of over-identifying restrictions; the larger it becomes, the more likely it is that the model is incorrectly specified and/ or that the instruments are invalid, however, the smaller it is and if it is insignificant, it suggests that the instruments are valid. A J-statistic of 7.142743 and a Probability of 0.210239 indicate that instruments are valid and well specified.
b) Stability Diagnostics: Model Specification Test; Ramsey RESET Test
   Ramsey proposed RESET (Regression Specification Error Test) which is a general test of specification. Specification errors may arise from omitted variables, incorrect functional forms and correlation between the error term and the explanatory variables. The test reports the F-ratio and the log-likelihood ratio for testing the null hypothesis that the coefficients on the powers of the fitted values are all zero, i.e. the equation is wrongly specified. Gujarati and Porter (2009) and Orekoya and Olowookere (2012) have opined that when the test-statistics are significantly different from zero at the chosen level of significance (when it is not significant) we reject the null hypothesis and conclude that the equation is correctly specified. Given that the probability of the F-statistic is not significant, we reject the null hypothesis and conclude that the equation is correctly specified (Table 2)
c) Endogeneity/Instrument Orthogonality C-Tests Test
   The OLS assumption that the error term be uncorrelated with the explanatory variables gave rise to the orthogonality condition:
   $$E[u(t) \setminus x_1(t), x_2(t), \ldots\ldots, x_k(t)] = 0$$

A violation of this condition leads to the endogeneity problem which ultimately results into a spurious regression (Seddighi et al, 2000). The instruments orthogonality condition also requires that the instruments used in the 2SLS be exogenous, a violation of which results also into a spurious regression and corrupts the validity of the instruments. This is particularly true when lagged dependent variables are included in the regression equation.

For an efficient econometric exercise therefore, where it is suspected that some variables are endogenous, it is important to test the null hypothesis that the error terms are uncorrelated with some or all the regressors against the alternative that they are correlated, although not with the instruments. A regressor is endogenous if it is explained by the instruments in the model, whereas exogenous variables are those which are not explained by the instruments. If the difference in J-Statistic is insignificant then accept the null hypothesis, i.e. the variable(s) is/are exogenous (Orekoya and Olowookere, 2012). Our result has also showed that the orthogonality restiction is complied with. Since the probabilities of the Obs*R-squared and Chi-Square are insignificant, there is no presence of serial correlation nor Heteroskedasticity in the estimation (See Tables 3-5)

RESULTS

We proceed to deduce from our result that productivity and investment in human capital; particularly investment in education has an elastic impact on the growth of the economy. This means that a percentage increase in productivity or investment in human capital causes a more than proportionate increase in the growth of the economy. This is highly significant even at one percent significant level. These elastic impacts of human capital and productivity on economic growth is transmitted through changes in demographics, such as increased total school enrolment, life expectancy, labour force participation, reduced fertility and infant mortality rates. This means that improvements in demographic trend surely increase economic growth through its positive impacts on productivity. Human capital investment in health proved to be inelastic but very significant. We can accept that budgetary misappropriation; lack of budget discipline and implementation might also help us in understanding the reasons behind the inelastic nature. The Adjusted R-squared of 0.969513 show us that 96% of the variations in economic growth can be explained from productivity and investment in human capital. A high F-Statistic and the significances of its probability show that the model is relevant in explaining these effects.

CONCLUSION AND RECOMMENDATIONS

Based on these diagnostic tests, this study confirms that productivity and investment in human capital, particularly investment in education has an elastic impact on the growth of the economy. It proceeds to recommend that government should endeavour to ensure compliance with the United Nations and World Health Organization benchmark on expenditure/investment on education and health. This will enhance a productive demographic trend in the country via the exploitation of the country's demographic window of opportunity. Furthermore, it should be emphasized here that no nation could develop beyond its investment in education.

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APPENDICES

TABLES

Table 1: 2SLS2 RESULT

Dependent Variable: LNRGDP
Method: Two-Stage Least Squares
Date: 07/12/14 Time: 18:33
Sample (adjusted): 1990- 2010
Included observations: 21 after adjustments
Instrument specification: LNTSE LNLE LNLFP LNFR LNIMR LNSTJ LNINF LNRGH
[2] **Two - Stage Least Squares**

Constant added to instrument list

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-9.851068	1.621946	-6.073612	0.0000
LNGDPW	1.643510	0.147243	11.16187	0.0000
LNRGE	0.268885	0.049267	5.457748	0.0000
LNRGH	-0.181250	0.055186	-3.284328	0.0044

R-squared	0.974086	Mean dependent var[3]	12.88979
Adjusted R-squared	0.969513	S.D. dependent var	0.379830
S.E. of regression	0.066321	Sum squared resi[4]	0.074773
F-statistic	215.8498	Durbin-Watson stat[5]	1.721182
Prob[5](F-statistic)	0.000000	Second-Stage SSR	0.037216
J-statistic	7.142743	Instrument rank	9
Prob(J-statistic)	0.210239		

[3] variable, [4]residual, [5]statistic, [6]probability

Table 2: Ramsey RESET Test

Equation: UNTITLED
Specification: LNRGDP C LNGDPW LNRGE LNRGH
Instrument specification: LNTSE LNLE LNLFP LNFR LNIMR LNSTJ LNINF LNRGH
Omitted Variables: Squares of fitted values

	Value	Df[7]	Probability
t-statistic	0.544936	16	0.5933
F-statistic	0.296956	(1, 16)	0.5933
Difference in J-stats	0.800372	0	NA[8]

[7]degree of freedom, [8]not available

Table 3: Instrument Orthogonality C-test Test

Equation: UNTITLED
Specification: LNRGDP C LNGDPW LNRGE LNRGH
Instrument specification: LNTSE LNLE LNLFP LNFR LNIMR LNSTJ LNINF LNRGH

Test instruments: LNFR LNIMR LNSTJ LNINF LNRGH

	Value	Df	Probability
Difference in J-stats	7.142743	5	0.2102

J-statistic summary:

	Value
Restricted J-statistic	7.142743
Unrestricted J-statistic	6.28E-28

Table 4: Breusch-Godfrey Serial Correlation LM Test

Obs*R-squared	0.284262	Prob. Chi-Square(2)	0.8675

Table 5: Heteroskedasticity Test: White

F-statistic	0.538596	Prob. F(9,11)	0.8190
Obs*R-squared	6.423442	Prob. Chi-Square(9)	0.6969
Scaled explained SS	13.12785	Prob. Chi-Square(9)	0.1569