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# International Journal of Information, Business and Management

## CONTENTS

1 **PUBLISHER, EDITOR IN CHIEF, MANAGING EDITOR AND EDITORIAL BOARD**

2 **THE EFFECT OF DEVELOPMENT ON PERFORMANCE OF SMALL ENTERPRISES IN NAIROBI CITY COUNTY, KENYA**

SAMUEL GATHU, EVANGELINE M. GICHUNGE, THOMAS SENAJI

3 **RELATIONSHIP BETWEEN MARKETING RESEARCH, CUSTOMER KNOWLEDGE AND BUSINESS SALES**

MOHAMMAD SAIF AHMAD

4 **CAN FINANCIAL RATIO CHANGE STOCK PRICE? (LQ 45 INDEX CASE STUDY FOR 2010-2018)**

FAISHAL FADLI, OUYANG HONGBING

5 **ARE FOR-PROFIT TQM PRACTICES SUITABLE FOR INGOS HUMANITARIAN INTERVENTIONS? (A LITERATURE REVIEW)**

RATEB J.SWEIS, FIRAS I. MAHMOUD-SALEH, AFNAN ALAWNEH, TAGHRID SUIFAN, GHALEB J. SWEIS

6 **A COMPARATIVE STUDY: IMPACT OF BEST HRM PRACTICES ON HRM OUTCOMES IN THE ORGANIZATIONS OF PAKISTAN & CHINA**

RIDA BATOOL, YANG SHENGBIN, IQRA BATOOL

7 **DEVELOPING TRIP GENERATION RATES FOR RESTAURANTS IN AMMAN**

AYAT AL-MADADHAH, RANA IMAM

8 **PLANNER OR PLAYER? QUANTIFYING CONSUMERS' MENTAL BUDGETING CONTROL ABILITY**

ZHIGUO YANG

9 **DEVELOPMENT OF LOGISTIC REGRESSION MODEL TO PREDICT DEFAULT PROBABILITIES OF LOAN ACCOUNTS**

ALAN ZHANG

10 **NON-PERFORMING LOANS AND ITS IMPACT ON LENDING RATE IN THE BANKING SECTOR OF GHANA**

XU HUI ZHEN, TINODIWANASHE MOSES MAWOKO, TEYE BENJAMIN

11 **HEALTH CARE LEADERSHIP COMPETENCIES IN JORDAN: A PROFESSIONALS' PERCEPTION**

MAIS ISSAM, RATEB J. SWEIS, AFNAN R. ALAWNEH

12 **DOES INFLATION INFLUENCE UNEMPLOYMENT IN ZIMBABWE? AN ECONOMETRIC ASSESSMENT**



*ISSN 2076-9202*

SHAME MUKOKA

13 **WHAT ORGANIZATION/HR EXPECTING FROM YOUR CURRICULUM VITAE AND IMPORTANCE PRACTICES IN SRILANKA**

RAMAKRISHNAN VIVEK

14 **THE ECONOMIC IMPLICATION OF FRAUD IN NIGERIA**

EDWIN ANYIM, EDWIN ANYIM, PROF O.J ONWE

15 **DETERMINANTS OF CONSUMER DEMEANORS WITH REGARD TO HALAL FOOD**

SITI SALWA MD SAWARI, MOHD AL'IKHSAN GHAZALI, TAJULASHIKIN JUMAHAT

16 **THEORETICAL ANALYSIS OF MANAGING CORPORATE SOCIAL RESPONSIBILITY IN DEVELOPING COUNTRIES**

HUGUETTE BURA SIFA, CORNEILLE LUBOYA TSHIUNZA

17 **A CASE STUDY FOR CUSTOMER ORIENTATION OF SALESPEOPLE IN ENERGY SECTOR**

OZLEM SENVAR, ASLI TOSUN, İLKE İBRAHIM KIDER

18 **CRIME BEHAVIOURAL TENDENCY OF SCHOOL-GOING ADOLESCENTS IN IBADAN: HOME BACKGROUND, SELF-REGULATION AND PARENTING PROCESSES AS PREDICTORS**

ADEWUYI HABEEB OMOPONLE, MURAINA KAMILU OLANREWAJU

19 **PUBLIC TRANSPORTATION PROJECT: ANALYZING THE BUSINESS MODEL OF DELPHI SUBWAY AIRPORT EXPRESS METRO LINE**

NIKOLAOS PAPANIKOLAOU



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# THE EFFECT OF DEVELOPMENT ON PERFORMANCE OF SMALL ENTERPRISES IN NAIROBI CITY COUNTY, KENYA

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**ABSTRACT**

This research was done with the aim of establishing the effect of development on performance of small enterprises in Nairobi City County, Kenya. The research has in detail expressed one function of devolution that is believed to have affected the performance of small enterprises in Nairobi City County, Kenya, this has been done while citing the proponents of devolution. According to the Constitution of Kenya (2010); the fourth schedule; part two; the county governments have been allocated fourteen functions. The research study concentrated on only one function (independent variable) that has the most propensity of creating an effect on performance of small enterprises in Nairobi City County, Kenya, thus my singular research objective. This function is development. A descriptive research design was used for this study in order to describe key variables associated with development and performance of small enterprises in Nairobi City County, Kenya. A descriptive research design was used which helps describe current effects as they affect people or organizations. The researcher collected primary data using open and close ended questionnaires; this is in order to obtain optimal results from entrepreneurs in Nairobi City County. The sample size that the researcher worked with was one hundred and twenty. The researcher applied linear regression as a statistical tool for data analysis. The study revealed that development programs has led to increase in road networks, increase urban planning , improve street lighting and increase efficiency in public transport leading to an increase in sales turnover, increase in the profitability level and an increase in the growth of small enterprises.

**Key word:**

Development is the backbone of any growing and successful county is definitely a robust and profound development policy. This policy entails an organized political, economical and sociological strategy. This can be delivered by the instruments of devolution. Through this kind of arrangement small enterprises are able to record progressive growth thus this will definitely have a positive effect on performance of small enterprises in Nairobi City County.

Performance; given this particular context, performance denotes the growth/decline, maturity and/or the overall prosperity of a small business that is caused by devolution.

## INTRODUCTION

This research was an investigation into the effect of development on performance of small enterprises in



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Nairobi City County, Kenya.

The specific research objective was to investigate the effect of development on performance of small enterprises in Nairobi City County.

**Background of the study**

An enterprise is a business organization. Enterprises play a very crucial role, both domestically and economically. Domestically they avail all the basic and necessary amenities that man needs either to survive or make life comfortable e.g. food, toothpaste, clothes, drinks, household goods, electronics, hardware items etc. Some of which are basic needs and others luxuries. An enterprise, also known as a business or a firm, is an organization involved in the trade of goods, services, or both to consumers. Businesses are prevalent in capitalist economies, where most of them are privately owned and provide goods and services to customers in exchange for other goods, services, or money. Businesses may also be not-for-profit or state-owned. A business owned by multiple individuals may be referred to as a company. An enterprise may also be involved in manufacturing and processing other than a pure trading system. Small enterprises are basically businesses that are miniature in terms of capital base, staff, operation costs, turnover, sales, liquidity, physical size and market presence. Most start-ups start as small businesses, Webster (1964).

The forms of business enterprises that are most popular in Nairobi City County may include; Sole proprietorship; a sole proprietorship, also known as a sole trader, is owned by one person and operates for their benefit. The owner may operate the business alone or with other people. A sole proprietor has unlimited liability for all obligations incurred by the business, whether from operating costs or judgments against the business. All assets of the business belong to a sole proprietor, including, for example, computer infrastructure, any inventory, manufacturing equipment and/or retail fixtures, as well as any real property owned by the business, Sheffrin (2003).

Partnership; a partnership is a business owned by two or more people. In most forms of partnerships, each partner has unlimited liability for the debts incurred by the business. The three most prevalent types of for-profit partnerships are general partnerships, limited partnerships, and limited liability partnerships (Sheffrin, 2003).

Corporation; the owners of a corporation have limited liability and the business has a separate legal personality from its owners. Corporations can be either government-owned or privately owned. They can organize either for profit or as not-for-profit organizations. A privately owned, for-profit corporation is owned by its shareholders, who elect a board of directors to direct the corporation and hire its managerial staff. A privately owned, for-profit corporation can be either privately held by a small group of individuals, or publicly held, with publicly traded shares listed on a stock exchange (Sheffrin, 2003). Cooperative; often referred to as a "co-op", a cooperative is a limited liability business that can organize for-profit or not-for-profit. A cooperative differs from a corporation in that it has members, not shareholders, and they share decision-making authority. Cooperatives are typically classified as either consumer cooperatives or worker cooperatives. Cooperatives are fundamental to the ideology of economic democracy (Sheffrin, 2003). Examples of business classifications may include; agri-business, mining, financial services,



ISSN 2076-9202

manufacturing, processing, retailers and distributors, service businesses, transportation and utilities (public services).

A county is a geographical region of a country used for administrative or other purposes in certain modern nations. Devolution is the statutory granting of powers from the central government of a sovereign state to government at a sub national level, such as a regional, local, or state level. It is a form of decentralization. Devolved territories have the power to make legislation relevant to the area. Devolution differs from federalism in that the devolved powers of the sub national authority may be temporary and ultimately reside in central government, thus the state remains, *de jure* unitary. The Constitution of Kenya 2010 provides for devolution of political and administrative authority to 47 semi-autonomous Counties. These Counties are what were known as administrative District boundaries up to 1992 under the former Constitution, National Council for Law Reporting (2012).

The starting point of this study is to suppose that from an economic efficiency point of view, separation of nations is never desirable. A unified nation is always more efficient since free trade among regions is guaranteed, there is no duplication of costs in defense and law enforcement, and public amenities can be coordinated, Bolton and Roland (1997). A good example of devolution is in Mexico. In the 1980s, the citizens of the Federal District of Mexico, being the most populated federal entity in Mexico, began to demand for home rule; a devolution of autonomy in order to directly elect their head of government and to set up a Legislative Assembly. In 1987, an Assembly of Representatives was created, by constitutional decree, whose members were elected by popular vote. The devolution of the executive power was not granted until 1997 when the first head government was elected by popular vote. Finally, in 2000, power was devolved to the delegations, though limited: residents can now elect their own "heads of borough government". This spurred economic growth and fostered the emergence of new businesses thereby creating employment. Promotion of trade was rife and the devolved units were developed (Victor 2010).

Another example of devolution is France. In the late 1980s a process of decentralization (this is the process of redistributing or dispersing functions, powers, people or things away from a central location, central authority or a central government). This was undertaken by the French government. Initially regions were created and elected regional assemblies set up. Together with the departmental councils these bodies have responsibility for infrastructure spending and maintenance (schools and highways) and certain social spending. They collect revenues through property taxes and various other taxes. In addition a large part of spending is provided by direct grants to such authorities. This decentralization promoted trade and economic prosperity more so in the private sector where most businesses are (Victor 2010).

Another example, still in Europe is Spain. The Spanish Constitution of 1978 granted autonomy to the nationalities and regions of which the Kingdom of Spain is composed. Under the "system of autonomies", Spain has been quoted to be "remarkable for the extent of the powers peacefully devolved over the past 30 years" and "an extraordinarily decentralized country", with the central government accounting for just 18% of public spending; the regional governments 38%, the local councils 13% and the social-security system the rest. This led to better access of technology thus increased economic activity more so for business owners. Small businesses in the devolved units of government have ripped the full benefits of devolution thus economic opulence in the said sector (Victor 2010).



ISSN 2076-9202

### Statement of the problem

Since time in memorial many enterprises have come up in Kenya, both in large and small scale. Some of them have grown from small enterprises to large enterprises while others entered the scene and still have not grown or are stagnant. Up until today, many businesses have come up, and in the same way, a few have collapsed. Some of the reasons that have contributed to the collapse of some of these businesses may include; mismanagement, lack of investors, poor management, lack of vision, economic instability and lack of popularity. The purpose of the study was to ascertain the effect of development on performance of small enterprises in Nairobi City County, Kenya.

There is no known research in Kenya on development and performance of small enterprises; this could be because it is new to Kenya since it is barely two years old. This led me to a theoretical worldwide researching endeavor on devolution and the performance of small enterprises. There are three empirical studies on the topic of devolution in other countries; the impact of devolution on the regulatory regime of the Inuvialuit settlement region by Higham (2012), Scotland's representation in Europe in the post-devolution era: results and expectations by Dmitrieva (2008) and exploring evidence of economic convergence in post-devolution in Wales by Godfrey (2012). The studies mentioned above all sort to ascertain the effect of devolution on social, political and economic systems; but none of them studied the effect of devolution on the performance of small enterprises in developing countries.

## LITERATURE REVIEW

### Theoretical orientation

This study believes that county governments should be more proactive in providing a favorable business environment for small enterprises. These proactive actions are meant to largely promote trade; thereby creating business opportunities which in turn translates to growth and prosperity. The reality in the devolved counties is that in the 21$^{st}$ century, there is no escaping universal trends and forces such as globalization, technology and the detonation in information. These factors are here with us to stay and cannot be wished away and the only way to cope with them is to relate with them closely and adopt them as they come, the idea here is to use the ready access to information to improve technology, foster development and promote trade. Political factors may also affect performance of small enterprises in Nairobi City County, for instance when Kenya was experiencing what would be called political unrest people remained indoors and very little economic activities were taking place. At this time trade went down by over 50%. This goes to show that politics plays a big role in the growth and performance of small enterprises. But since Kenya has greatly been experiencing peace in the political circles, this has greatly accounted for increased performance of enterprises in Kenya as a whole.

### Subsidiarity theory

Subsidiarity is a devolution policy principle that states; responsibilities for regulation and allocation of public goods and services should be devolved "to the maximum extent possible consistent with the national interest", or, as often said, to the 'lowest' spatial level of government appropriate for their exercise, so that "government is accessible and accountable to those affected by its decisions" (Galligan



ISSN 2076-9202

1995). This principle was the cornerstone of the Australian collaborative intergovernmental reform in the 1980s - 1990s, and remains a principle for which federal systems are generally seen as uniquely adapted (Grewal 1981, Wilkins 1995, Watts 1996, Oates 1999). Nevertheless subsidiarity has been identified as difficult to operationalise institutionally (Bermann 1994).

**Glocalisation theory**

'Glocalisation' describes the recent redistribution of economic influence from national spheres of government in two directions; into transnational spheres as described by globalization, but also back to more local and regional levels (Courchene 1995, British Council 1998). In North America and Europe, resurgences in regional economic and political identity have been described as "a form of defense, on the part of those with the greatest stake" against the new hyper mobility of capital (Markusen 1987, Andersson 1997). Party political instability such as experienced in Australia in the period of One Nation, and the ongoing political reassertiveness of non-metropolitan regional communities present a "double pressure" on existing governments, from both above and below, as also documented internationally (Dahrendorf 2000, Keating 1998). Australia has been seeking a post-globalisation regional development formula consistent with 'glocalisation' trends since the Kelty Report (1993). However attempts to import the 'new' economic regionalism described in trans-Atlantic countries are confronting a similar range of uncertainties to those compounding subsidiarity discussion, including comparative lack of institutional support for regional economic activity despite occasional appearances of "a greater devolution of power" to the regional level (Roberts 1996, Gerritsen 2000).

**Place/space management theory**

Since the late 1990s governments have attempted to compensate for the lack of regional level governance capacity through programs of community engagement aimed at active amelioration of regional social concerns. These new approaches have grown out of the 'reinvented' roles of industrialized governments as actors in their own political and economic systems (Davis & Keating 2000). As well as emphasizing the delegation of authority for planning and regulatory activity, place management approaches emphasize improved coordination between levels of government, and enhanced public participation (e.g. European Commission 2001). Governments are now consistently attempting to break down institutional 'silos' through better project-based whole-of-government coordination aimed at more "tailored responses to regional and local needs" (e.g. Vincent 1999); and place-based policy responses based on intensive, integrated intervention in areas of significant social and economic disadvantage (2001). Again, however, public institutional frameworks have not yet been configured in a way that maximizes the ability of communities to help themselves. Even when governments now openly recognize the importance of social capital to regional sustainability, uncoordinated policies may easily continue to erode that capital. Specific programs need to be created that are responsive to community needs, and that overcome the otherwise apparent tensions which arise from attempts by three existing levels of government to support change at the regional level. The partial approach (to sustainable regional development) that we have at present is one in which community participation is prominent in discussion, while the structural conditions that are so necessary to promote and support change are lacking (Cavaye 2002).



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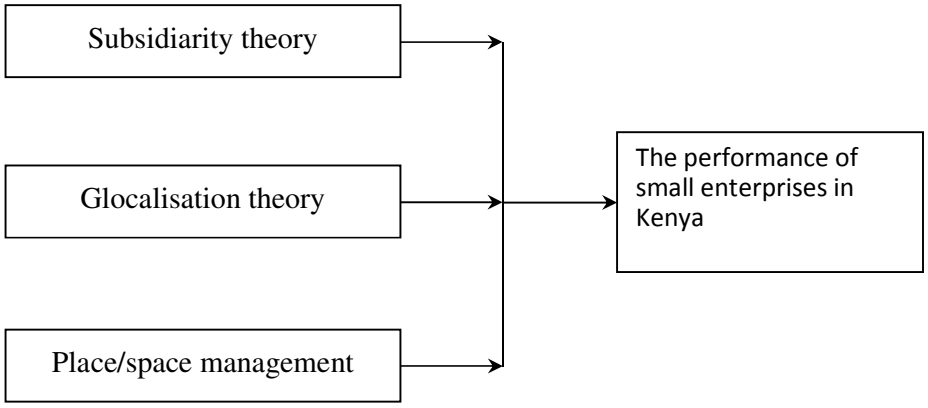
**The theoretical framework**

The purpose of the study was to investigate the effect of development on performance of small enterprises in Nairobi City County, Kenya.

**Theoretical framework**




**Independent variables** **Dependent variable**

**Source (Author, 2015)**

**Empirical review**

Development

The backbone of any growing and successful county is definitely a robust and profound development policy. This policy entails an organized political, economical and sociological strategy. This can be delivered by the instruments of devolution. Through this kind of arrangement small enterprises are able to record progressive growth since they now have access to adequate finances to; hire the most qualified and skilled personnel, to provide training solutions to its staff (this is so as to increase its effectiveness') and to purchase state of the art technological solutions (this is so as to make firms operations much faster, more efficient and increasingly likeable to the customers eye).

According to the constitution of Kenya there exists two levels of government namely the national government and the county governments. In the fourth schedule of the Kenyan constitution there exists distribution of functions between the national government and the county governments. Part one of the article contains the functions of the national government. Part two of the article contains the functions of the county governments, which are fourteen in number. Devolution is realized when all the fourteen functions are devolved from the national government and are subsequently implemented in the best ways possible; this will have a positive change on performance of small enterprises in Nairobi City County. The constitution is very clear on the pinnacles of development, this is the fifth and the eighth function of county governments. This function entails; county transport, county roads, street lighting, traffic and parking, public road transport, ferries and harbors, county planning, statistics, land survey and mapping, boundaries, fencing, housing, energy and gas reticulation, if the said functional elements are implemented entirely; this will definitely have a positive effect on performance of small enterprises in Nairobi City County (Constitution of Kenya, 2010).



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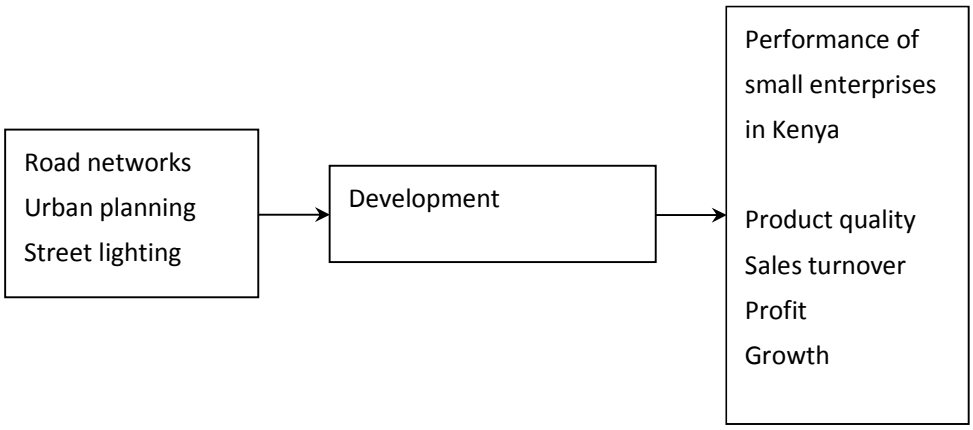
**Operational framework**

The purpose of the study was to investigate the effect of development on performance of small enterprises in Nairobi City County, Kenya.

**Operational framework**




**Independent variable** **Dependent variable**

**Source (Author, 2015)**

## METHODOLOGY

This refers to the structure, scheme, plan or outline that the researcher used to collect information from the respondents. A descriptive research design was used for this study in order to describe key variables associated with the issue at hand. The researcher collected data from a population so as to determine the effect of development on performance of small enterprises in Nairobi City County.

The targeted population is fundamentally small enterprises in Nairobi City County. The research study comprehensively investigated the effect of development on performance of small enterprises in Nairobi City County, Kenya. The target population was fifty thousand small enterprises located in Nairobi City County. There are seventeen sub counties located in the said county. In this study, entrepreneurs of both genders and all ages were targeted. Entrepreneurs of goods based, service intensive and hybrid (goods and services) enterprises were targeted. The researcher intends to work with formal enterprises.



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**Population frame**

| Population Category | Population size | Percentage |
|---|---|---|
| Goods based enterprises | 4000 | 8 |
| Service intensive enterprises | 9500 | 19 |
| Hybrid (goods and services) enterprises | 36500 | 73 |
| Total | 50000 | 100 |

**(Source Author 2015)**

The scope of the study focused on devolution and small enterprises. The research study comprehensively investigated the effect of development on performance of small enterprises in Nairobi City County, Kenya. The researcher worked closely with small businesses located in the 17 sub counties located in Nairobi City County.

This is the process by which a relatively small number of individuals or objects or events are selected and analyzed, in order to find out something about the population from which they were selected. Out of many sampling methods, stratified random sampling will be used because the population was divided into a more relevant strata and random sampling was going to be drawn from the strata. The formula (sample size calculation by Creative Research Systems, 1982) applied to get a sample from the fifty thousand enterprises has a confidence level of 95%, a confidence interval of 9 and with a target population of 50,000; this gives the researcher a value of 118. Thus 118 + 2 (margin of error) = 120.

**Sampling frame**

| Population Category | Sample size | Percentage |
|---|---|---|
| Goods based enterprises | 10 | 8 |
| Service intensive enterprises | 23 | 19 |
| Hybrid (goods and services) enterprises (Offers goods and services to the market) | 87 | 73 |
| Total | 120 | 100 |

**(Source: Author 2015)**

## RESULTS AND DISCUSSION

### Results

This chapter presents analysis and findings of the study as set out in the research methodology. The results are presented on the effect of development on performance of small enterprises in Kenya. The primary data was gathered exclusively from a questionnaire as a research instrument. The questionnaire was designed in line with the objectives of the study. To enhance quality of data obtained, Likert type questions were included whereby respondents indicated the extent to which the variables were practiced in a five point Likert scale.



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**Descriptive Statistics**

**Descriptive statistics on the variable of development**

**The '$X_2$' variable is an independent variable; this is the variable of development.**

**Descriptive statistics on the variable of development**

| | Development ($X_2$) | | | | |
|---|---|---|---|---|---|
| | N | Minimum | Maximum | Mean | Std. Deviation |
| Extend to which Road networks have contributed to performance of small enterprises in Nairobi City County (NCC) | 106 | 2.00 | 5.00 | 4.3491 | .91592 |
| Extend to which Urban planning has contributed to performance of small enterprises in NCC | 104 | 2.00 | 5.00 | 4.0577 | .87940 |
| Extend to which Street lighting has contributed to performance of small enterprises in NCC | 105 | 1.00 | 5.00 | 4.2476 | .82952 |
| Extend to which Public transport have contributed to performance of small enterprises in NCC | 106 | 1.00 | 5.00 | 3.9717 | 1.13354 |
| Valid N (listwise) | 102 | | | | |

This table shows the descriptive statistics on the '$X_2$' variable; this is the variable of development. The idea here was to ascertain the extent to which the said parameters contributed to performance of small enterprises in Nairobi City County. According to the study findings, all the respondents agreed with all the items asked for development. Mean >3.4.

**Discussion**

The study established that devolution of development programs in Nairobi City County improved performance of small enterprises in the county. The study found that development programs were mostly rated as good. The study revealed that development programs has led to increase in road networks, increase urban planning , improve street lighting and increased efficiency in public transport leading to increase in sales turnover, increase in profitability level and increase in the growth of small enterprises. The study established that urban planning; road networks, public transport and street lighting had contributed to performance of small enterprises to a very great extent. From regression analysis, the study revealed that there existed a significant positive relation between devolution of development programs, urban planning, road networks, public transport and street lighting and the performance of small



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enterprises in Nairobi City County.

The study concluded that devolution of development programs has led to increase in road networks, increased urban planning, improved street lighting and an increased efficiency in public transport leading to increase in sales turnover, increase in profitability level and an increase in the growth of small enterprises. Increase in urban planning, road networks, public transport and street lighting had contributed to performance of small enterprises to a very great extent. The study concluded that there existed a significant positive relation between devolution of development programs that is urban planning, road networks, public transport and street lighting and the performance of small enterprises in Nairobi City County.

The study recommend that implementers of devolution should increase efficiency in devolving development programs by improving road networks, increase urban planning , improve street lighting and increase public transport service delivery as this would result to an increase in the sales turnover, increase in profitability level and the growth of small enterprises in Nairobi City County. Increase in urban planning, road networks, public transport and street lighting had a significant contribution on performance of small enterprises; this is to a very large extent.

## REFERENCES

Mishkin F. & Eakins S.G. (2003): Financial Markets and Institutions, fourth edition. New York City: Pearson Education International.

O'Brien J.A. (2002): Management Information Systems (Managing IT in the E-Business enterprise), fifth edition. New York City: Mc-Graw hill.

Pandey I.M. (2002): Financial Management, eighth edition. New Delhi, India: Vikas Publishing House (PVT) Ltd.

Gowthrope C. (2005): Business Accounting and Finance for non-specialists, second edition. Bed ford, London: Thompson learning publishers

Kotler P. & Armstrong G. (2001): Principles of Marketing, ninth edition. New Jersey, USA: Prentice hall Inc.

Lipsey R.G. & Chrystal K.A. (1999): Principles of Economics, ninth edition. New York City: Oxford University press.

Laudon K.L. & Laudon J.P. (2004): Management Information Systems (Managing the digital firms), eight edition. New Jersey, USA: Pearson Education.

Bolton P., Roland G. & Spolaore E. (1996): 'Economic theories of the break-up and integration of nations', *European Economic Review,* 40: 697-706.

Boone L. & Girouard N. (2002): 'The Stock Market, The Housing Market and Consumer Behaviour', *Economic Studies*, 35/2, OECD.

Boumans M. & Davis J. B. (2010): *Economic Methodology: Understanding Economics as a Science*, Basingstoke: Palgrave Macmillan.



***ISSN 2076-9202***

Bowers P. & Webb D. (2012): 'Devolution in Wales: the Silk Commission', Standard Note: SN/PC/06108, Parliament and Constitution Centre, and Economic Policy and Statistics Section, London: House of Commons Library.

Brand Henk J. E. M. (2003): 'A Regional Core, Adjacent, Periphery Model for National Economic Geography Analysis', Working Papers 2004 1, Department of Economics, University of Glasgow.

Breitung J. (2000): 'The Local Power of Some Unit Root Tests for Panel Data', in: B. Baltagi (Ed.), *Nonstationary Panels, Panel Cointegration.*

Dow S. C. (2002): *Economic methodology: an inquiry*, Oxford: Oxford University Press.

Dow S. C. & Montagnoli A. (2007): 'The Regional Transmission of UK Monetary Policy', *Regional Studies,* 41(6): 797-808.

Dowrick S. & Nguyen D. (1989): 'OECD Comparative Economic Growth: Catch Up and Convergence', *American Economic Review*, 79(5): 1010-1030.

Le Gallo J., Ertur C. & Baumont C. (2003): 'A spatial econometric analysis of convergence across European regions, 1980-1995'. In *European Regional Growth*, Fingleton, B. (Ed.) Berlin: Springer-Verlag.

Lessmann C. (2006): 'Fiscal Decentralization and Regional Disparity: A Panel Data Approach Evidence for OECD Countries, *IFO Working Paper No. 25,* University of Munich: Institute for Economic Research.

Lessmann C. (2009): 'Fiscal Decentralization and Regional Disparity: Evidence from Cross-Section and Panel Data, *Environment and Planning A*, 41: 2455-2473.

Leunig T. & Swaffield J. (2008): *Cities Unlimited. Making Urban Regeneration Work*, London: Policy Exchange.

Levin A., Lin Chien-Fu & Chu Chia-Shang J. (2002): 'Unit Root Tests in Panel Data: Asymptotic and Finite Sample Properties', *Journal of Econometrics*, 108: 1-24.

Lin J. Y. & Liu Z. (2000): 'Fiscal Decentralization and Economic Growth in China', *Economic Development and Cultural Change*, 49 (1): 1-21.

Lim U. (2003): 'A Spatial Analysis of Regional Income Convergence', *Planning Forum*.

Lindert P. H. & Williamson J. G. (2003): 'Does Globalization Make the World More Unequal?' in Bordo, M. D. Taylor, A. M., and Williamson, J. G. (Eds.)



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# RELATIONSHIP BETWEEN MARKETING RESEARCH, CUSTOMER KNOWLEDGE AND BUSINESS SALES

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**Abstract**
Marketing is one of the core measures that evaluate the business success. The concept of marketing is further divided into three different groups i.e. marketing research, customer knowledge and business sales which play significant role in determining the perks of the new startup or already running enterprise. The past study has been done separately on marketing research, customer knowledge and business sales which interpreted the effects of all the above-mentioned marketing components on business solely. This paper aims to clarify the relation between marketing research, customer knowledge and business sales. Also, the current study shows that how these three marketing elements collectively effects business.
**Keywords:** Marketing Research, Customer Knowledge, Business Sales**,** Customer Relationship Management, Customer Knowledge Management

## 1. Introduction

The execution of every business process is highly dependent upon the marketing strategies which are crucial to determine the business lifeline. Before taking some serious steps while dealing with the business operations, it is very significant to conduct a proper marketing research. The experts defined the marketing research as *the process of collecting, analyzing and concluding information about a market, product or a service which is required to be offer in the market for sale. Also, it includes the information regarding past, present and potential customers of the product or service which is going to hit the market, it includes research into characteristics, buying habits, location and requirements of business target market, the industry and the competitors that business face*. Marketing research is the rigorous way to collect information about the potential customers and tough competitors to stay in the market for the longer period (Entrepreneur, 2019).

Another important factor which determines the success of the business that is customer knowledge. It is impossible to sale the product or service without knowing the needs of the target market (Rollins & Halinen, 2005). The marketing gurus defined customer knowledge as *the understanding of the customers, their needs and aims. It is essential for a business to align its process, products and services to build strong customer relationship management* (Campbel, 2003). The importance of customer knowledge is a key ingredient to establish a business structure. The definition of product or services for business establishment comes from the customer knowledge. For instance, if a business person initiates sugar supply business while the location of its trade is situated where people utilizes sugar alternates then it will ultimately non profitable for the business person. Thus, it is important for the execution of newly



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established business to collect customer knowledge first (Chiou, 2002).

Business sale is also matter for successful business execution. The term business sale is defined as transaction where money or value is exchanged for the ownership to a good or entitlement to a service. Business sales is basically a return value which is considered as the profit or revenue. It is impossible to imagine the execution of the business without business sales.

The above discussion showed that the three marketing concepts i.e. customer knowledge, marketing research and business sale are closely interlinked with each other. Without proper marketing research it is impossible to hit the right target market. Also, the customer knowledge matters to keep the marketing research balanced. The third important element which is business sale is possible only if the market research has done properly with concreate customer knowledge about the product or service. The aim of this paper is to analyze these three marketing factors and their relationship with each other. The study of this paper will help the business owners and marketers to devise the marketing strategies for the execution of the business operation. Also, it will guide the entrepreneurs how marketing research and customer knowledge effects the business sales.

## 2. Literature Review

The past study showed that the core function of the marketing research is to evaluate the scope of business growth by measuring customer needs and potential in market. The significant marketing strategies and meaningful marketing information is derived from the properly conducted marketing research. The past study has shown different methods to led market research. It has been observed that the UK based company initiated the process of marketing research which includes the components like *problem or opportunity analysis*. This component of the process determines that what problems people are facing in terms of services and products. The second part of this component is opportunity which helps the marketers to fill the market gap. The second important component of the marketing research process is *Decision Alternative Analysis.* This point strengthens the concept to keep the alternate solutions side by side. For instance, if the decided solution cannot be implemented then business persons must have an alternate solution to solve the problem or to avail the opportunity. The third crucial component of marketing research is *Research Decision Makers* this point emphasized that whether the decided solution is worthy enough to implement. The research of the marketing decision fundamentally decides the pros and cons of the strategies which are needed to deploy for the business execution.

Marketing research is not sufficient to observe or measure the business growth. The development of every business domain is highly dependent on customer relationship management. CRM is consisted of set of rules and procedures which support business strategy to build long term relationships with customers. The past work showed that CRM is founded on customer knowledge. The detailed customer's needs and requirements greatly assists the business developers to shape their business according to the customer wants. The purpose of the customer knowledge is to keep the target market engaged with business. The concrete customer information helps in identifying and attracting the right target market. Also, it supports the customer retention and development. These above-mentioned four dimensions are useful to understand the customer value ( Xiu , E.W.T. , & Ngai , 2008). The past study showed that, Customer



ISSN 2076-9202

knowledge (CK) is known as an acute organizational resource that delivers competitive advantage. Capability of fascinating, sharing, and applying CK can be a challenge for organizations. Human, Organizational, and Technological conditions that facilitate CK management (CKM) are vital capabilities for organizations (Hussin, 2018). Here, the term customer knowledge management is explained by experts in past study as customer knowledge management is a key for refining management of dealings with customers which also practices knowledge management tools in the way of attaining it. Reaching the knowledge about customer is one source of management of relation with customers. Among which knowledge management is a certain process for collecting, organizing and smearing such knowledge and as this knowledge is customer- dependent, therefore, management of associations with customers has a direct relation with customer knowledge management (Azam & Nodehia , 2014).

The third important element which determines the marketing success is business sales. In the past study it is found that the optimized frequency of business sales is determined by previously discussed factors i.e. customer knowledge and marketing research. This point shows the relationship customer knowledge, marketing research and business sales. Also, it shows that business sale is not an independent entity, it depends upon the customer awareness and the marketing research of the product or service. A study (Panda, 2018) showed that business sale performance is also determined by the salesperson. The job of sales person is challenging. In 2012 Talent Shortage Survey, it is observed that the thousands of employers from eight different countries of Asia Pacific are looking for sales representatives and considered it the most difficult job position. It is true that the business sales are the most challenging task as to do this the business person must have the proper customer and market knowledge. Also, the sales person must have the good marketing skills.

## 3. Research Questions

The present theoretical study is conducted to deduce the relationship among three marketing components including marketing research, customer knowledge and business sales. To interpret the relationship among these three marketing components the following research questions are designed:

- Which customer knowledge constituents influence on customer relationship building?
- How customer knowledge improves marketing research?
- How marketing research improves business strategy?
- How marketing strategy increase business sales?

The responses of above-mentioned research questions are derived from the previously conducted research work in similar domain. Although, the past studies were conducted for each marketing domain separately. The present research paper is theoretical, and its inference is based on the relationship among the three marketing components discussed above.

## 4. Responses

This section contains the research-based responses for the above-mentioned research questions. To prepare this paper more than five hundred research articles and journals of the relative domain are studied in detail to figure out the relationship among the three crucial marketing elements i.e. marketing research,



ISSN 2076-9202

customer knowledge and business sales. The responses of above-mentioned research questions are discussed below:

1. **Which customer knowledge constituents influence on customer relationship building?**

   The key classification of customer knowledge is defined into following three elements:

   - **Knowledge for customers:** It is a unidirectional knowledge that customers gain from the organization which is ready to place the product and service in the market (Smith & MaCkeen, 2005). This element is also referred as customer awareness. This piece of knowledge helps organization in customer sustainability which help them in monitoring customers' changing preferences and increase in their demands. This point also helps in identifying the likes and dislikes of the target market. This element is also called the customer awareness, it makes customer familiar about the newly launched products or services of the organization. However, the definition of knowledge for customer introduced by other researchers was defined as "The knowledge prepared for the customers was not necessary the knowledge that customer needs". This definition shows that only very small proportion of knowledge provided by organization is useful for customers. While most of the knowledge is used to create the good word of mouth only.
   - **Knowledge about customer:** It is the understanding about customers that an organization seek to observe their characteristics and preferences about product or services which they are going to introduce in the market (Chen & Su, 2006). The customers interact with the organizations via versatile channels, on the base of these channels the organizations perform. the customer segmentation. Also, customer segmentation is done by reviewing their buying history provided by the connecting channels. The acquired knowledge about customer is considered as the organization's insight which it uses to sell their products or services.
   - **Knowledge from customer:** This is the type of knowledge which completely belongs to the customers. According to (Paquette , 2006) knowledge from customer is more important for organization instead of the other two types. This knowledge contains the information that customers have about the organization's products, services and competitors. It also provides the information regarding customer's input for product development and innovation. The sources of knowledge from customer are complaints, feedbacks, needs and recommendations that they generate after the utilization of the product or service. It keeps organization focused to capture correct target market and adopt suitable business strategies for the revenue optimization (Ilham , Piaralal, & Bohari, 2011).



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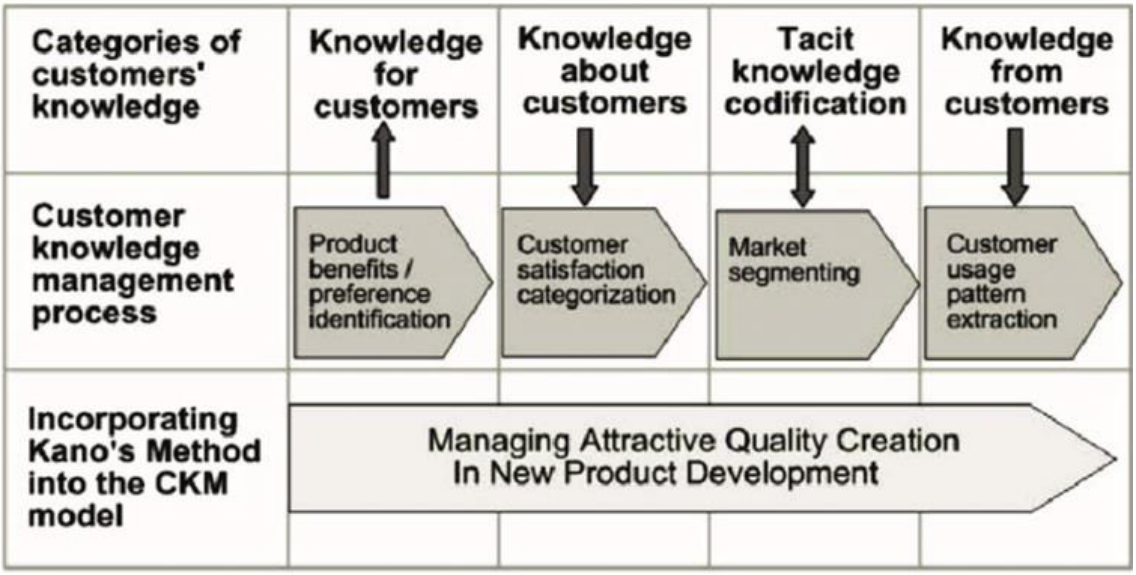


**Figure 1: The Kano- CKM Model**

These three elements of customer knowledge classification determine the overall strategy of customer knowledge management, so that business could meet the goal so that product or service can be sold in the right market place.

2. **How customer knowledge improves marketing research?**

The customer knowledge has direct influence on marketing research. The marketing gurus gave the definition of marketing research as, the process of analyzing and collecting the information about market, product or service that is needed to introduce in the market place. Also, it includes the information about the past, present and potential customers of that product or service. Further, it includes the research of the location, habits and characteristics of the target market. This definition clarifies that without the additional customer knowledge the marketing research is difficult (Moorman, Zaltman, & Dashpande, 1992). The following table shows the relationship between the marketing research and customer knowledge:

**Table 1: Relationship Between Marketing Research & Customer Knowledge**

| Marketing Research Elements | Customer Knowledge | Source |
|---|---|---|
| Information about the product or service | Knowledge for customer | Organization |
| Needs and demands about product or service | Knowledge from customer | Customer/target market |
| Location | Knowledge about customer | Market place |
| Product development and innovation | Knowledge from customer | Feedback/suggestions |

3. **How marketing research improves business strategy?**



*ISSN 2076-9202*

Marketing research is the robust tool to make better business decision and increase the competitive edge. The properly conducted marketing research help in improving business as follow:

***Improvement in branding:*** it is observed that most of the business-driven companies don't know how to handle the branding of their company. Marketing research plays vital role in this matter it helps in creating brand awareness by maintain the response of the query that to what extend customers are aware of companies' brand. Also, the marketing research ensures personification which determines that to what extend customers are associated with brand. The survey conducted during marketing research helps the companies in determining the value of brand logo and vouchers. The best way to perform marketing research is to conduct interviews with customers. The quality knowledge about business via marketing research helps in establishing the robust business values.

***Customer understanding:*** Marketing research help in understanding the customers by asking their age, education, gender, marital status, number of children and their interactions with social media. This information helps business executives to devise business strategies based on socio-economic status of the customers.

***Determines business effectiveness:*** most of the companies works to promote their jobs which ultimately increases the business sales. With help of customer feedback, the marketers design optimized marketing budget.to increase the overall profitability of the company.

***Insights about new product:*** With marketing research it becomes easier to know the insights about newly launch product. By interviewing customers about the newly launched product greatly helps in identifying the right market for the placement of the product. Once the right market is identified it becomes easier to predict the future revenue of the business (Kazim, 2019).

**4. How marketing strategy increase business sales?**

The relationship between the marketing strategy is direct with business sales. The robust and efficient marketing strategies increases the business sales. The most ideal way to drive the good marketing strategy is to conduct the useful marketing research and keep customers aware about products or services. The blend of marketing research and customer knowledge helps is devising the effective marketing strategy e.g. it determines the ways to hit the right marketing place, right audience and right age group. Once this information is met, it becomes easier for the business executives to discover the ways for customer satisfaction. Thus, the customer satisfaction will increase their loyalty with brand which ultimately increase the business sales.

**5. Results**

The above discussed research questions showed the vivid relationship between marketing research, customer knowledge and business sales. The following matrix is designed to observe research response summary:



ISSN 2076-9202

**Table 2: Research Response Summary**

| Research Questions | Responses |
|---|---|
| 1. Which customer knowledge constituents influence on customer relationship building? | The following three constituents of customer knowledge help in building customer relationship:<br>• Knowledge for customer<br>• Knowledge about customer<br>• Knowledge from customer |
| 2. How customer knowledge improves marketing research? | Customer knowledge assists marketing research as follow:<br>• It provides the customer characteristics like gender and age<br>• It provides the knowledge of right market place<br>• It helps in placing the brand position |
| 3. How marketing research improves business strategy? | Marketing research improves business strategy as follow:<br>• Improvement in branding<br>• Customer understanding<br>• Determines business effectiveness<br>• Insights about business products |
| 4. How marketing strategy increase business sales? | The robust marketing strategy increases customer satisfaction and loyalty which ultimately increases business sales. |

**Discussion**

This aim of this research paper is to devise the relationship between the marketing research, customer knowledge and business sales. The literature review showed that the study on these three marketing components has been done separately. The mutual relationship among these three components is not observed together. The present research showed that marketing research and customer knowledge have direct influence on each other. The customer knowledge greatly assists in identifying the crucial elements of marketing research including, customer age, gender and other demographics. The identification of these marketing elements made possible by constituents of customer knowledge includes knowledge about customer, knowledge for customer, knowledge from customer. Also, the present study shows that the information about the customers gain by interviewing the customers directly and feedbacks recovered from them.



*ISSN 2076-9202*

Further, the research showed that the information gain from customer knowledge and marketing research help the business development executives to develop robust marketing strategies. These robust marketing strategies help the companies in establishing customer loyalty with brands which ultimately increase business sales.

## Conclusion

Marketing research, customer knowledge and business sales are strongly connected with each other. Customer knowledge helps in attaining the customers insights which reinforce the process of marketing research. The step of marketing research provides the knowledge about market which ultimately help the business development executives to devise robust marketing strategies. Once the convincing marketing strategies are established, it leads to the customer satisfaction which consequently turns to customer loyalty with the brand. The strong customer loyalty boosts the good word of mouth which ultimately increases business sales.

## References

Xiu , L., E.W.T. , & Ngai . (2008). Application of data mining techniques in customer relationship management. *Expert Systems with Applications*.

Azam, A., & Nodehia , A. (2014). Analysis of Impact Of Customer Knowledge Management On Customer.

Campbel, A. J. (2003). Creating customer knowledge competence: managing customer relationship management programs strategically. *Industrial Marketing Management*.

Chen, & Su. (2006). Managing Attractive Quality Creation In Product Development .

Chiou, J.-S. (2002). Does Customer Knowledge Affect How Loyalty is Formed? *Journal of Service Research*.

Entrepreneur. (2019). *Entrepreneur*. Retrieved 8 13, 2019, from https://www.entrepreneur.com/encyclopedia/market-research

Hussin, A. (2018). Customer knowledge management antecedent factors: A systematic literature review. *The Journal of Cooperate Transformation* .

Ilham , S., Piaralal, S., & Bohari, A. (2011). The influence of Customer Knowledge on CRM Performance of Malaysian ICT Companies.

Kazim, M. (2019). *5 ways to improve your business with market research*. Retrieved from Bdc: https://www.bdc.ca/en/blog/pages/5-ways-improve-business-market-research.aspx

Moorman, C., Zaltman, G., & Dashpande, R. (1992). Relationships between Providers and Users of Market Research. *The Dynamics of Trust within and between Organizations*.

Panda, S. (2018). Sales Performance.

Paquette , S. (2006). Communities of practice as facilitators of knowledge exchange.



***ISSN 2076-9202***

Rollins , M., & Halinen, A. (2005). Customer Knowledge Management Competence: Towards a Theoretical Framework. *IEEE*.

Smith, H., & MaCkeen, J. (2005). Adding Value to Customers .

UK, E. (2018). Literature Review Of Marketing Research Procedure.



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# CAN FINANCIAL RATIO CHANGE STOCK PRICE? (LQ 45 INDEX CASE STUDY FOR 2010-2018)

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**Abstract**
Indonesian financial services authority require each of the company must state Current Ratio (CR), Return on Assets (ROA), Return on Equity (ROE), Net Profit Margin (NPM), earnings per share (EPS), Debt to Asset Ratio (DAR), Debt to Equity Ratio (DER) into its financial statements. The aim is to facilitate investors in understanding and comparing financial performance between companies. According to signal theory, companies will intentionally give investors signals in the form of financial information ratios to show that their company is better than other companies. Companies with excellent financial ratio performance will experience an increase in demand for shares. Increasing demand for these stocks will result in higher share prices. By using the panel data regression method this study resulted that not all financial ratios required by the publication by the financial services authority could affect the stock price. Only CR and EPS can affect stock prices.

**Keywords**: Financial Ratio, LQ45 index, Stock Price

## 1. Introduction

The Indonesia Stock Exchange (IDX) classifies various indexes to facilitate investors in choosing shares from various listed companies. Like the LQ 45 index, this index contains 45 stocks that have the most considerable capitalisation value. Stock capitalisation indicates how much the liquidation of the shares. According to IDX regulations, shares included in the LQ 45 index must meet several criteria. First, shares must enter the top 60 of the total 12-month market transactions. Second, stock capitalisation must be above 90% market capitalisation. Third, it has been listed on the Indonesia Stock Exchange for at least three months. Fourth, the company's financial situation and growth prospects. With these four criteria, shares included in the index are considered to be very profitable and have good prospects and are safe



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because stocks in the LQ 45 index will continue to be reselected every six months. Historically, the LQ 45 index share price has an upward trend, which proves that the index can be used as a reference to choose the best stocks on the IDX.

In addition to determining stocks through available indices, stocks need to be chosen by comparing performance between companies. An analysis is needed so that companies can be projected into numbers to compare performance between companies. Projecting a company into numbers is usually called company value (Fernández, 2002). Determining the value of the company is very important because the value of this company will also be used to determine the stock price. The value of the company may not be more than the ability of the company or commonly referred to as overestimate (Tate, 2003). If there is an overestimate and the specified share price is too high while the company's performance is not as good as that then the stock price will go down, and investors will suffer losses. Overestimate can occur because investors do not have enough access to get information about the condition of the company or the company that covers the condition of their company. This problem is commonly called information asymmetry.

Information asymmetry occurs when one party gets more information than the other party (Clarkson, Jacobsen, & Batcheller, 2007). In this case, the company, as a user of capital will know everything that happens in the company compared to investors as owners of capital (Lambert, Leuz, & Verrecchia, 2012). Investors will be challenging to determine the value of the company where investors do not know what is done by the company, whether what the company does will have a positive impact and provide benefits or vice versa (Healy & Palepu, 2001). This information asymmetry itself is divided into 2, namely adverse selection where investors have difficulty assessing the company when it will buy shares and moral hazard where information asymmetry appears when the investor has bought the stock.

With the emergence of this information asymmetry problem, the government took steps to reduce the problem by setting the publication of financial statements for companies listed on the Indonesia Stock Exchange (IDX) or called go-public companies. Financial statements are considered able to be a communication tool between the company and parties related to the company, one of which is the investor. The financial statements must be made within four months or quarterly. Besides, companies must make financial reports that are more interactive and easily understood in the form of annual reports / annual reports that are made in one year, making it easier for investors to read the company's financial statements. All financial statement publications must be listed on each company's website and the Indonesia Stock Exchange (IDX) website. It is hoped that with the publication of financial statements, investors will be able to assess the company better and can set a fair price for the company's shares.

Although the government has helped investors access to know the condition of the company through financial statements, investors themselves still find it challenging to understand the numbers contained in the financial statements. Not all investors have sufficient knowledge in terms of understanding the relationship between accounts and analysing the financial statements because it requires its techniques and adequate accounting knowledge. Analysing financial statements can be used several ways, namely financial ratio analysis, comparative analysis, Du Point analysis, and Economic Value Added (EVA) (Griffin, 2015). The most commonly used and most accessible to understand is financial ratios (Healy,



ISSN 2076-9202

2000).

The Indonesian Financial Services Authority decides several ratios that must be included in the financial statements, namely, Current Ratio (CR), Return on Assets (ROA), Return on Equity (ROE), Net Profit Margin (NPM), earnings per share (EPS), Debt to Asset Ratio (DAR), Debt to Equity Ratio (DER). The purpose of regulations that require financial ratios included in financial statements is so that investors more easily obtain the information needed to be considered investment decision making. By following these regulations, and making it easier for investors to assess financial conditions, the company includes these ratios in the financial statements.

Through the ratios contained in the financial statements, the company wants to facilitate investors in understanding and comparing financial performance between companies. In line with this, the signal theory suggests that companies will intentionally give signals to investors to show that their companies are better than other companies (Connelly, Certo, Ireland, & Reutzel, 2011; Eugene F. Fama, 1991). With the information in the form of financial ratios, investors are expected to be able to differentiate their companies from other companies (Eugene F. Fama, Fisher, Jensen, & Roll, 1969).

The stock price of a company is formed from the supply and demand of these shares (Eugene F. Fama, 1965). Demand for a stock will increase if the stock is considered profitable. Conversely, if investors feel the company's performance is declining or if the stock is considered to be experiencing a price decline and become unprofitable, investors will sell shares. How significant the number determined by investors in buying and selling shares depends on investors' assessment of the prospects of the company and the stock itself. In this case a quick and precise analysis needs to be used so that investors can set a reasonable price and not suffer losses.

This research makes it easy for investors to make buying or selling decisions quickly and accurately by showing the financial ratios that are most influential on stock prices whereas companies can focus on improvements to financial ratios that have the most influence on stock prices. Indeed, not a few studies that analyse the effect of financial ratios on stock prices in Indonesia. Nevertheless, no one has focused on LQ45 shares and using all of the financial ratio (CR, ROA, ROE, NPM, EPS, DAR, DER). Moreover, the results of the previous studies vary from period to period.

## 2. Literature Review

### *2.1.Efficient Market Hypothesis*

Efficient market hypothesis theory was born from rational expectations theory which has a broader scope (Sewell, 2011). Rational expectations theory emphasises that economic actors act rationally and have complete information about economic activities (Hendry, 2017). Whereas efficient market hypothesis theory emphasises the use of information in the capital market and money market (Malkiel, 1991). Share prices reflect all available information about the value of assets (Malkiel, 2003).

The market is said to be efficient if all actors in the market (investors, companies, and all institutions included in it) will not get an abnormal return that has been adjusted to the risk and normal trading that occurs in the market (Eugene F. Fama, 1965). Therefore, the market is said to be efficient if the price of shares/securities being traded reflects all the information available in the market (E. F. Fama, 1970;



ISSN 2076-9202

Eugene F. Fama, 1965). The emphasis on the concept of an efficient market is information.

In the theory of an efficient market hypothesis stock prices will change when the information obtained by investors changes (Eugene F. Fama et al., 1969). If the market responds quickly to information and forms a new stock price balance, then the market is said to be efficient. There are three groups of information, namely, past price information, all information available to the public, and all available information including information from parties within the company (Brown & Haugen, 1986) while the stock price reflects two information namely, past information and current information (Logue & Francis, 1973).

Efficient market forms can be grouped into three, depending on the type of information available (Eugene F. Fama, 1991).

1. Weak Form.

   In the efficient market hypothesis, the weak form of the stock price is assumed to reflect the past information of the price of the security. The price formed by shares is a reflection of the price movements of these shares in the past. The use of past stock price movement information as a basis for determining stock prices is better known as technical analysis.

2. Semi Strong Form.

   In the efficient market hypothesis, the semi-strong form of stock prices is assumed to reflect past information (past stock price movements) plus all information available to the public. Data available to the public can be in the form of published financial statements and additional information from the financial statements. The use of financial statements to analyse company performance to determine stock prices is better known as fundamental analysis.

3. Strong Form.

   In the efficient market hypothesis, a strong form of the stock price is assumed to reflect all current information, both past information, public information, and private information. Private information in question is information obtained from parties within the company intended for several parties such as the board of directors and creditors.

### *2.2.Signalling Theory*

Signal theory is a theory which states that a company will intentionally provide information to users of financial statements so that the parties can distinguish if the company is better than other companies (Besley & Brigham, 2008). Users of the financial statements referred to are internal and external parties, especially to investors, company owners, and creditors. The information provided can be through published financial statements and information directly and includes how the company management in running the company following the wishes of the owners of the company.

Signaling Theory also refers to investors' decisions in choosing and buying shares of a company (Levy & Lazarovich-Porat, 1995). Investors need information related to the company to assess the condition of the company whose shares will be purchased so that investors will not be wrong in buying company shares. When information is released to the public, the information will be a signal in an investment decision, namely the decision to buy, sell, or hold ownership of the company's shares. Information related to company conditions can be obtained through published company financial statements so asymmetry of



ISSN 2076-9202

information between investors as external parties to the company and company management who better understand the company can be reduced.

### *2.3.Relationship of financial ratios with stock prices*

Financial markets are a reflection of efficient markets. In addition to the information that is available in the financial markets which are very detailed and diverse, that information can also be accessed by the public. With the regulation of the Indonesian financial services authority which requires that the company's financial ratio namely (Current Ratio (CR), Return on Assets (ROA), Return on Equity (ROE), Net Profit Margin (NPM), earnings per share (EPS), Debt to Asset Ratio (DAR), Debt to Equity Ratio (DER) be published, information makes this information more detailed and makes it easier for investors.

The current ratio is essential in financial statements because it can describe the level of security of short-term creditors (Horrigan, 1968). Interpretation of the current ratio for each party that uses financial statements will vary. For creditors, the high ratio will show how big the possibility of short-term debt that they will provide can be paid by the company. For investors, the high current ratio indicates excessive use of cash and is not used effectively.

Return on Assets (ROA) or in some references commonly called Return on Investment (ROI) can describe the earning power or ability to produce a company by using all of its assets (Clay & Macmillan, 1917). ROA is handy for comparing two or more companies that have different capital conditions (Healy, 2000) while Return on Equity (ROE) includes a smaller return that is only a return on own capital.

Net Profit Margin illustrates how much net profit the company takes for each product sold. Net profit margins provide certainty to investors over the possibility of profits that can be generated (Griffin, 2015). While earning per share is a benefit that the company can provide to shareholders, the higher the ratio, the greater the income received by investors. These two ratios determine how much certain income investors will receive in the form of dividends (Griffin, 2015).

Debt to asset ratio and debt to equity ratio are used by investors to assess the company's ability to return their debt through assets and capital or equity, so that the possibility of default that causes the bankruptcy of the company in the future can be seen (Griffin, 2015). If the company is considered capable of fulfilling its obligations through assets and capital owned, it will provide security for investors to buy the company's shares.

The publication of these ratios by companies is to facilitate investors in understanding and comparing financial performance between companies. Information in the form of financial ratios can show the performance of each company(Eugene F. Fama et al., 1969). Companies with excellent financial ratio performance will be hunted down by investors so that the stock price will increase. According to Fama (1970), this is how efficient market hypothesis works in the semi-strong form.

Based on the signal theory, companies will intentionally give signals to investors to show that their companies have better performance compared to other companies (Connelly et al., 2011; Eugene F. Fama, 1991). The signal is in the form of the publication of financial ratios from each finance. If the signal is positive, an increase in demand for shares will be accompanied by an increase in the price of the stock.



ISSN 2076-9202

## 3. Methodology

### *3.1.Panel data regression analysis*

Regression analysis is research to see the dependence of one variable on one or several other variables (explanatory variables) (Gujarati, 2004). The aim is to make estimates and predict population averages or the average values of the dependent variable in relation to known values of the explanatory variables. While panel data is a data collection technique that uses time series and cross-section data collections (Greene, 2012). According to Gujarati (2004) the use of panel data in the regression analysis method has several advantages. First, Panel data is a combination of two data namely time series and cross-section to be able to provide more data and will produce a higher degree of freedom. Second, Combining time-series data and cross-section information can overcome problems that arise when there are variable removal problems (omitted variables). According to Greene (2012) Panel data regression has 3 estimation methods, namely:

1. Common Effect Model / Pooled Least Square

   This estimation method is the simplest estimation method which only combines time-series data and cross-sections in the form of a pool. This method assumes that all individual behaviours are the same at various times. This method uses Ordinary Least Square (OLS) to estimate panel data. The regression equation formed by the common effect model method is as follows:

$$Y_{it} = \alpha + \beta_1 X_{1it} + \beta_2 X_{2it} + \cdots + \beta_n X_{nit} + e$$

2. Fixed Effect Model

   In this method, it is assumed that differences between individuals are included in intercept differences. This model uses dummy variables to explain the differences in the intercepts.

$$Y_{it} = \alpha + \alpha_1 D_1 + \cdots + \alpha_n D_n + \beta_1 X_{1it} + \beta_2 X_{2it} + \cdots + \beta_n X_{nit} + e$$

3. Random-effect Model

   This model estimates used when in the panel data model, there are confounding variables that are related between time and between individuals. The random-effect model accommodates differences in intercepts through the error terms of each company. The advantage of this method is that it can eliminate heteroscedasticity.

$$Y_{it} = \alpha + \mu + U_i + W_{ij} + \beta_1 X_{1it} + \beta_2 X_{2it} + \cdots + \beta_n X_{nit} + e$$

Where Y is the dependent variable (stock price). α is a constant. β is the beta coefficient of the independent variable. X is an independent variable (financial ratio). t is time. I is company stock. D is the dummy variable. μ is the average stock price for the entire population. U is the specific stock price



ISSN 2076-9202

random-effect (measure the difference between the averages stock price and the average score in the entire stocks. W is the individual-specific random-effect (deviation of the stock price from the average for the i-th stocks.

To choose the most appropriate estimation method used in the model under study can be done through several tests, namely: Chow tests are tests conducted to determine which Fixed Effect / Common Effect Model is the most appropriate to use, the Hausman test is a test used to determine which fixed effect / random-effect model is best used in the model, the Lagrange Multiplier test is used to choose between the random-effect / common effect model that is most appropriate to use. It is necessary to test the classic assumptions So that the regression results are not biased and meet the nature of BLUE (Best Linear Unlimited Estimator), namely the normality test, autocorrelation test, multicollinearity test, and heteroscedasticity test.

***3.2.Data***

The population of this research is all companies that went public on the Indonesia Stock Exchange (IDX) in 2010-2015. The sampling technique used is to use a non-probability sample, which is a technique that does not provide equal opportunity for each element or member of the population to be selected as a sample (Doherty, 1994). The type of non-probability taken is purposive sampling, which is a sampling technique using specific considerations or criteria (Doherty, 1994). Considerations or criteria used are companies that have remained in the LQ45 index from 2010 to 2018.

The data used in this study are secondary data obtained from the publication of annual financial report data and company annual reports published on the Indonesia Stock Exchange (IDX). The collection method used is the documentation method. The documentation method is to collect, record and study the data obtained, namely financial ratio data from the company's annual financial statements included in the LQ45 index during 2010-2015 from the Indonesia Stock Exchange (McManus, 2011).

In this study, the analysed data are balanced panel data, where the number of observations of each data is the same; research is conducted in time series for each independent variable on the dependent variable. The number of observations of time (T) for nine years, ie from 2010 to 2018 and the number of companies (N) studied were 20 companies (top 20) out of 45 companies. All the data were transformed into natural logarithms so that the data is normally distributed.

## 4. Result and Discussion

*Table 3 Chow Test*

| Effect Test | Statistic | d.f | Prob. |
|---|---|---|---|
| Cross-Section F | 2.07 | (19, 153) | 0.0000 |

*Table 4 Hausman Test*

| Test Summary | Chi-Sq. Statistic | Chi-Sq d.f | Prob. |
|---|---|---|---|
| Cross-section random | 4.60 | 7 | 0.7084 |



ISSN 2076-9202

*Table 5 Langrage Multiplier Test*

| Test Summary | Chi-Sq. Statistic | Chibar2 | Prob. |
|---|---|---|---|
| Breusch-Pagan | 5.18 | 1 | 0.0114 |

Hausman test and LM test give the same results, then this study will use a random-effect model. The random-effect was chosen because the number of observations (n) was more significant than the number of study periods (t) (Gujarati, 2004). Also, the random-effect model pays attention to individual characteristics, wherein this study the stocks in LQ 45 come from different sectors and have different characteristics that affect the difference in financial structure so that the random-effect model is more suitable than the fixed-effect model.

*Table 6 Multicollinearity Test*

| Variable | LOG_ROE | LOG_ROA | LOG_NPM | LOG_EPS | LOG_DER | LOG_DAR | LOG_CR |
|---|---|---|---|---|---|---|---|
| LOG_ROE | 1.000000 | 0.672570 | 0.520488 | 0.361380 | 0.182499 | 0.110472 | -0.244423 |
| LOG_ROA | 0.672570 | 1.000000 | 0.059138 | 0.352933 | -0.503988 | -0.428892 | 0.341990 |
| LOG_NPM | 0.520488 | 0.059138 | 1.000000 | 0.065790 | 0.353630 | 0.110020 | -0.356700 |
| LOG_EPS | 0.361380 | 0.352933 | 0.065790 | 1.000000 | 0.072517 | 0.081033 | -0.222413 |
| LOG_DER | 0.182499 | -0.503988 | 0.353630 | 0.072517 | 1.000000 | **0.905186** | -0.814925 |
| LOG_DAR | 0.110472 | -0.428892 | 0.110020 | 0.081033 | **0.905186** | 1.000000 | -0.714667 |
| LOG_CR | -0.244423 | 0.341990 | -0.356700 | -0.222413 | -0.814925 | -0.714667 | 1.000000 |

Based on the multicollinearity test above, it was found that only Log_DAR (omitted) variables experienced multicollinearity symptoms. Variables that did not experience symptoms of multicollinearity due to correlations values <0.8.

*Table 7 Heteroscedasticity Test*

| Variable | Prob. |
|---|---|
| LOG_CR | 0.4706 |
| LOG_ROA | 0.1711 |
| LOG_ROE | 0.2272 |
| LOG_NPM | 0.6926 |
| LOG_EPS | 0.7015 |
| **LOG_DAR** | **0.0163** |
| LOG_DER | 0.0665 |

The results of the regression using the residual variable as an independent variable indicate that the



*ISSN 2076-9202*

Log_DAR variable has a probability value below 0.05. Therefore variable Log_DAR will be omitted. This research also uses Breusch-Pagan / Cook-Weisberg for testing heteroscedasticity. The results show a probability result of 0.09676 with a chi2 value of 0.00. Based on these results it can be said that there are no heteroscedasticity problems.

*Table 8 Autocorrelation Test*

| **Model** | **dl** | **du** | **4-du** | **4-dl** | **dw** |
|---|---|---|---|---|---|
| Random-effect | 1.68779 | 1.82536 | 2.17464 | 2.31221 | 1.440072 |
| Cochrane Orcutt | | | | | 2.085627 |

From this table, the dw value from the regression results is below the dl value (1.378077 <1.82536), which means that a positive autocorrelation occurs. However, it can be overcome by using Cochrane Orcutt on the model.

*Table 9 Regression Results*

| Variable | Coefficient | t-Statistic | Prob. |
|---|---|---|---|
| C | 7.502385 | 8.635338 | 0.0000 |
| LOG_CR | -0.341879 | -3.720457 | 0.0003 |
| LOG_ROA | 0.312034 | 2.348881 | 0.0200 |
| LOG_ROE | -0.038134 | -0.289789 | 0.7723 |
| LOG_NPM | -0.334852 | -2.991587 | 0.0032 |
| LOG_EPS | 0.646310 | 11.96805 | 0.0000 |
| **LOG_DAR** | **0.000421** | **0.002562** | **0.9980** |
| LOG_DER | -0.081347 | -0.602874 | 0.5474 |
| R-squared = 0.587478 | | | |
| t-table = -1,98 and 1,98 | | | |
| F-table = 1.98 | | | |
| F-statistic = 34.99246 | | | |
| Prob(F-statistic) = 0.000 | | | |

Based on the regression results the random-effect method above shows that the Log_DAR variable is not significant. Therefore, the decision to omit the Log_DAR variable is correct. The following results of the panel regression with the random-effect method without the Log_DAR variable:



ISSN 2076-9202

*Table 10 Regression Result Log_DAR omitted*

| Variable | Coefficient | t-Statistic | Prob. |
|---|---|---|---|
| C | 7.501174 | 9.068723 | 0.0000 |
| LOG_CR | -0.345926 | -3.816538 | 0.0002 |
| LOG_ROA | 0.313888 | 2.427585 | 0.0162 |
| LOG_ROE | -0.039413 | -0.304673 | 0.7610 |
| LOG_NPM | -0.334360 | -3.160545 | 0.0019 |
| LOG_EPS | 0.651204 | 12.30622 | 0.0000 |
| LOG_DER | -0.083197 | -0.935111 | 0.3510 |
| R-squared = 0.598621 | | | |
| t-table = -1,98 and 1,98 | | | |
| F-table = 1.98 | | | |
| F-statistic = 43.00237 | | | |
| Prob(F-statistic) = 0.000 | | | |

Based on the results of the regression method random-effect above shows that without the Log_DAR variable the value of $R^2$ increases. The increase in the value of $R^2$ strengthens the reason for the study to omit Log_DAR variables. However, based on the results of the autocorrelation test in the panel data regression results with the random-effect model shows the symptoms of autocorrelation (there is a correlation of variables in the regression model with a change in time). Therefore, the regression result is spurious regression. So the model must be transformed using the Cochrane Orcutt method. The following is the result of the transformation:

*Table 11 Cochrane Orcutt Results*

| Variable | Coefficient | t-Statistic | Prob. |
|---|---|---|---|
| C | 8.975213 | 8.020729 | 0.0000 |
| **LOG_CR** | -0.309712 | -2.555752 | **0.0116** |
| LOG_ROA | -0.036338 | 0.157940 | 0.8183 |
| LOG_ROE | 0.080225 | 0.632460 | 0.5280 |
| LOG_NPM | -0.078274 | -0.479237 | 0.6325 |
| **LOG_EPS** | 0.192951 | 2.282468 | **0.0238** |
| LOG_DER | -0.028001 | -0.267557 | 0.7894 |
| R-squared = 0.909672 | | | |
| t-table = -1.98 and 1.98 | | | |
| F-table = 1.98 | | | |
| F-statistic = 218.6789 | | | |
| Prob(F-statistic) = 0.000 | | | |



ISSN 2076-9202

T table value in this test with the two tail method is equal to -1.98 and 1.98. If it is <- 1.98 or> 1.98 it is concluded significant. If it is between - 1.98 to 1.98 (-1.98 <t statistics <1.98) then it can be concluded that it is not significant. Besides, probability values> 0.05 also indicate the significance level of each variable. The regression results above show that only the LOG_CR and LOG_EPS variables are significant.

Based on the regression results above, the regression equation is obtained as follows:

LOG_STOCKPRICE = 8.975213 – 0.309712 LOG_CR + 0.192951 LOG_EPS + e

The complete interpretation of the regression equation is as follows:

1. β 1 = 0.309712

   The regression coefficient of - 0.309712 from the variable current ratio (CR) shows that every increase of one per cent of changes in the variable CR, it will cause changes in variable stock prices down by 0.22798 per cent and vice versa. It is applied with the assumption that other variables are of fixed value.

   The results of the CR variable regression showed significant results in a negative direction. It means that the CR variable has a negative effect on stock prices. When the CR variable increases, the stock price variable will decrease. The influence of CR on stock prices proves that the theory of efficient market hypotheses applies. Investors use this information in forming stock prices. In the theory of an efficient market hypothesis when information changes, stock prices will change. So when the CR changes, the share price will also change. In addition, signal theory also applies, where with the presence of CR investors can distinguish which companies have good prospects. Because the CR ratio describes how much current assets owned by the company compared to current liabilities owned. The increase in CR is not favored by investors, because it proves that the company does not manage its liquid assets properly, investors will respond negatively to it and cause share prices to fall.

   Based on existing data (Appendix), it appears that CR and stock prices have the opposite relationship. When CR owned by a company is high, the stock price of that company tends to be low. According to the data, PT. Lippo Karawaci Tbk has the highest average CR of 700% and has the lowest average share price of Rp 488. It proves that the relationship between CR and stock prices has a negative and significant relationship.

2. B 2 = 0.192951

   The regression coefficient of 0.192951 from the earning per share (EPS) variable shows that each increase of one per cent of changes in the EPS variable, it will cause changes in variable stock price rise by 0.192951 per cent and vice versa. It applies to the assumption that other variables are of fixed value.

   The results of the EPS variable regression showed significant results in a positive direction. It means that the EPS variable has a positive influence on stock prices. When EPS rises, stock prices will rise. With the significant effect of EPS on stock prices prove the theory of efficient market hypothesis occurs. Information changes in the value of EPS can move the stock price.



ISSN 2076-9202

EPS is a ratio that describes the distribution of profits received for each common stock. The rising EPS indicates that the company is profitable, and the profits received by investors are also rising. Therefore, with the increase in EPS the share price will rise. It proves the signal theory can apply. With a high EPS the company can give a signal that their company is better than other companies and attract investors to buy the company's shares because the company's shares are profitable.

Based on data (Appendix) shows that EPS and stock prices have a direct relationship. When EPS owned by a company is high, the stock price of that company will be high. Data shows that PT. Gudang Garam Tbk has the highest EPS average of Rp 4,049 and also has the highest average share price of IDR 57,549. It proves that the relationship between EPS and stock prices has a positive and significant relationship.

The F test was carried out to test the effect of all the independent variables together on the independent variable. This influence can be seen by comparing the F-statistic value with the F table and looking at the Sig.F value. From table 9 it can be seen that the F-statistic value> F table (218.6789 > 1.98) and the Prob value. F, which shows significant (0.000 <0.05) means that H0 is rejected. So simultaneously or together the variables CR, ROA, ROE, NPM, EPS, DAR, and DER have a significant effect on stock prices. The result is in line with the signalling theory and efficient market hypothesis. All those financial ratios that company provide can affect the stock price.

To see how much the ability of the independent variables to explain the dependent variable, the value of R2 obtained from the regression output is used. In table 9 it can be seen that the value of $R^2$ is 0.909672. It shows that the ability of independent variables, namely CR, ROA, ROE, NPM, EPS, DAR, and DER in explaining the dependent variable that is stock price, is 91% while 9% is explained by other factors outside the research model.

## 5. Conclusion

F test results state that the entire variable that is required to be published by the OJK can simultaneously affect stock prices. These results are in line with the theory of signalling and efficient market hypothesis. Information that is deliberately published by companies in the form of financial ratios will be captured by investors as a basis for thinking about buying or selling the stocks. The result will affect the supply and demand for shares which will have an impact on the ups and downs of the stock price. However, based on t-test results, only Current Ratio (CR) and Earning per Shares (EPS) can partially affect the stock price. High CR proves that the company does not manage its liquid assets properly. Investors will respond negatively to it and cause share prices to fall. While EPS shows the level of profitability of a company. The higher the EPS value, the more attractive the company is to investors.

The result can simplify and speed up investors to be able to choose buying or selling actions against the LQ45 shares. Investors should base their investment decisions based on the company's fundamentals or the company's performance not based on historical prices where these prices can be played by dominating investors, so that risk will be more likely to occur, for companies to focus improvements to the financial ratio that has the most influence on stock prices. For the government, it is necessary to have an integrated website where the website is directly displayed regarding financial performance, company profile, historical stock prices of the company, as well as information related to macro conditions that can



ISSN 2076-9202

influence investors in the stock trading decision. With the integrated website, investors do not need to look for information separately about company information, so that information received between one investor and another investor is the same.

A limitation of this paper is the use of financial ratio variables which are limited to the advice of financial service authorities. For future research, we can add another financial ratio in order to provide more comprehensive results.

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## References

Besley & Brigham. (2008). *Essentials of Managerial Finace*. *Thomson Southwestern*.

Brown, S. J., & Haugen, R. A. (1986). Modern Investment Theory. *The Journal of Finance*. https://doi.org/10.2307/2328243

Clarkson, G., Jacobsen, T. E., & Batcheller, A. L. (2007). Information asymmetry and information sharing. *Government Information Quarterly*. https://doi.org/10.1016/j.giq.2007.08.001

Clay, C. F., & Macmillan, W. E. F. (1917). Financial Statement. *The Journal of Hellenic Studies*. https://doi.org/10.1017/S0075426900057980

Connelly, B. L., Certo, S. T., Ireland, R. D., & Reutzel, C. R. (2011). Signaling theory: A review and assessment. *Journal of Management*. https://doi.org/10.1177/0149206310388419

Doherty, M. (1994). Probability versus non-probability sampling in sample surveys. *The New Zealand Statistics Review*.

Fama, E. F. (1970). Efficient Capital Markets-A Review of Theory and Empirical Work. *The Journal of Finance*. https://doi.org/10.2307/2329297

Fama, Eugene F. (1965). The Behavior of Stock-Market Prices. *The Journal of Business*. https://doi.org/10.1086/294743

Fama, Eugene F. (1991). Efficient Capital Markets: A Review of Theory and Empirical Work. *Journal of Finance*. https://doi.org/10.2307/2328565

Fama, Eugene F., Fisher, L., Jensen, M. C., & Roll, R. (1969). The Adjustment of Stock Prices to New Information. *International Economic Review*. https://doi.org/10.2307/2525569

Fernández, P. (2002). Company Valuation Methods. In *Valuation Methods and Shareholder Value Creation*. https://doi.org/10.1016/b978-012253841-4.50003-2

Greene, W. H. (2012). *Econometric Analysis (Seventh Edition)*. *Prentice Hall*.

Griffin, P. A. (2015). Financial Statement Analysis. In *Finding Alphas: A Quantitative Approach to Building Trading Strategies*. https://doi.org/10.1002/9781119057871.ch22

Gujarati, D. N. (2004). *Basic Econometric*. *The McGraw-Hill*. https://doi.org/10.1126/science.1186874



***ISSN 2076-9202***

Healy, P. M. (2000). Financial Statement and Ratio Analysis. *Harvard Business Case*.

Healy, P. M., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics*. https://doi.org/10.1016/S0165-4101(01)00018-0

Hendry, D. F. (2017). Rational expectations. In *Economic Ideas You Should Forget*. https://doi.org/10.1007/978-3-319-47458-8_32

Horrigan, J. (1968). A Short History of Financial Ratio Analysis. *The Accounting Review*.

Lambert, R. A., Leuz, C., & Verrecchia, R. E. (2012). Information asymmetry, information precision, and the cost of capital. *Review of Finance*. https://doi.org/10.1093/rof/rfr014

Levy, H., & Lazarovich-Porat, E. (1995). Signaling theory and risk perception: An experimental study. *Journal of Economics and Business*. https://doi.org/10.1016/0148-6195(94)00022-6

Logue, D. E., & Francis, J. C. (1973). Investments: Analysis and Management. *The Journal of Finance*. https://doi.org/10.2307/2978201

Malkiel, B. G. (1991). Efficient Market Hypothesis. In *The World of Economics*. https://doi.org/10.1007/978-1-349-21315-3_28

Malkiel, B. G. (2003). The efficient market hypothesis and its. In *Journal of Economic Perspectives*. https://doi.org/10.1257/089533003321164958

McManus, P. A. (2011). Introduction to Regression Models for Panel Data Analysis. *Indiana University Workshop in Methods*.

Sewell, M. (2011). History of the efficient market hypothesis. *RN*.

Tate, G. A. (2003). *Essays in behavioral corporate finance*. *ProQuest Dissertations and Theses*.



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# ARE FOR-PROFIT TQM PRACTICES SUITABLE FOR INGOS HUMANITARIAN INTERVENTIONS? (A LITERATURE REVIEW)

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**Abstract**

This article aims to identify the critical Total Quality Management (TQM) determinants of survival that may be in place in the interventions of International Non-Governmental Organizations (INGOs) and to suggest a TQM model for further quantitative research. TQM determinants of survival for INGOs were identified from the for-profit literature related to the Industry-specific quality and accountability practices and standards. The researchers advocated that TQM determinants that applied in the for-profit sector can be adopted in the INGOs context. In total, six critical TQM determinants of survival for INGOs were proposed by this review including leadership and management commitment, beneficiaries focus and participation, partnership management for sustainability, Human resource (HR) focus, process management and learning and continuous improvement, and use of quality information. While many researchers discussed how to improve performance of INGOs by adopting the traditional management practices or the quality excellence models, this article supports the notion that the factor based TQM practices can assist the managers of INGOs towards a better performance of the humanitarian interventions.

**Keywords** Total quality management, INGOs, Accountability, Humanitarian intervention, TQM practices.

## 1. Introduction

The multiplicity of INOGs in the affected areas with the scarcity of resources and donations creates competitive environment such as that environment which exists among for-profit organizations. As a result, the innovative INGOs managers started to adopt the for-profit management philosophies such as



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TQM to keep their persistence in the humanitarian space and to maintain sustainable results of interventions and, in turn, sustainable funding.

During the last years, TQM gained increased popularity as a key strategy to enhance performance of the firms (Mensah et, al., 2012) and is still considered as one of the most important comprehensive improvement approaches in the modern economy (Slack et al., 2010) to achieve organizational excellence (Goetsch and Davis, 2013, Hatamleh et al. 2018).

By its very nature, the relief work imposed lack of awareness to the topic of sustainability as result of the sudden nature of the disasters and the diversity of specialists working on projects that require quick response (Madu and Kuei, 2014). However, while it seems to be difficult to identify quality from NGOs perspective, it can be attained by both achieving beneficiaries' satisfaction and creating the intended positive impact on the beneficiaries (Al-Tabbaa et, al., 2013).

This review tries to explicitly discuss how the TQM practices can be adopted in INGOs context through analyzing the current state of research and evaluating what is practically applied through reviewing of the industry-specific practices and standards.

## 2. Background

### 2.1.Definition of INGOs

Vast diversity and inconsistency was found in the literature when referring to the organizations working in the field of humanitarian and social work, for instance, NGOs, NPOs, third sector, independent sector, voluntary sector, charitable sector, civil society organizations, and social economy (Zulkhibri, 2014). This diversity makes the term NGO wide and ambiguous (Lekorwe and Mpabanga, 2007) and its definition surprisingly problematic (Brendan and O'Dwyer, 2006).

In the United States of America, the term NPO used to refer to the exempted organizations. However, NGOs considered by (Lekorwe and Mpabanga, 2007; Connollym and Kelly, 2011; Cordery and Sinclair, 2013; Zulkhibri, 2014) as part of NPOs or the "Third Sector". Moreover, many researchers used the terms NPOs and NGOs interchangeably such as (UNEP, 2003; Al-Tabbaa et, al., 2013).

The term NGO used to define the organizations that neither related to government (WB, 2002) nor traditional for-profit organizations (Lambell et, al., 2008; Unerman and O'Dwyer 2010; Schwenger et, al., 2014).

According to Gray et, al. (2006), the unavoidable contradictions in defining NGOs is an element of their successes and importance, and put them under attacks regarding the accountability as well. However, the absence of commonly accepted definition of NGOs did not hide the significant increasing in the role of NGOs in the global environment through the development of aids (Lekorwe and Mpabanga, 2007), supporting the projects of public interests (Cheng and Chang, 2012; Schwenger et, al., 2014), and improving the quality of people's lives (Tajuddin and Ahmad, 2013).

For the purpose of this review, the focus will be on a common type of NGOs which is the International Non-Governmental Organizations, and will be abbreviated by INGOs (World Bank, 2002).

### 2.2.Performance of INGOs



ISSN 2076-9202

The variety of needs and the limited charitable resources caused the competition to be worthy to be taken into account by NPOs (Ashley and Faulk, 2010) and to find approaches to overcome the resulting changes from competitive realities with respect to the specific moral ideals of the sector (Schwenger et, al., 2014). However, NGOs need to measure performance in order to demonstrate the differences made by their interventions, to ensure the effective utilization of the scarce resources (Cordery and Sinclair, 2013), to prove the worth of interventions, and to use the results of performance measurements in the internal learning toward performance improvement (Huang and Hooper, 2011; Phil, 2013). Typically, research on performance measurement in non-profit organizations focused on the delivery of programs services (Hughes, 2013). However Cordery and Sinclair (2013) were very close to realities on the ground in most of the humanitarian aid programs when they touched on the term "Logframes" or (Logical Frameworks) as commonly used tool of planning, monitoring, and evaluation in the international development and which consists of three basic concepts of measuring performance of Output (number of assisted beneficiaries), Outcome (change brought by the intervention), and Impact (long term effect and the sustained change that occurred as a result of intervention). In this context, many researchers such as O Brien and Tooley (2013), Cordery et al. (2013), and Cordery and Sinclair (2013) warned about the risk of performance reporting when orientation is solely to the donors and discard of the other parties in the humanitarian interventions, the volunteers and the beneficiaries (the victims) who will be impacted by the outcome of interventions.

Recently, sustainability is considered as the core of NGOs development aids missions (Unerman and O'Dwyer, 2010). Thus, NPOs are increasingly paying more attention to the aspect of organizational sustainability (Al-Tabbaa, 2012; Al-Tabbaa et, al., 2013) in order to create value for the NGOs and for the served communities (McPhee, 2014). Al-Tabbaa (2012) suggested use of sustainable activity model which gives extended focus to the external impacts and opportunities toward resilience and sustainability. However, Lecy et, al. (2012) proposed four-dimensional paradigm of NGOs/NPOs effectiveness including core organizational management processes, design and effectiveness of programs, responsiveness to the external environment and influences, and networks and partnerships.
The role of stakeholders' participation in quality and sustainability of interventions was pointed by UNEP (2003) and Mahalinga and Suar (2012). However, EFQM (2014) pointed out the importance of creating a sustainable future and fulfilling both short and long term needs for the communities touched by the organization.

## 3. Methods

In order to investigate the critical TQM determinants of survival for INGOs, the research starts by reviewing the for-profit TQM literature. In the second step, the industry-specific quality and accountability practices and standards are reviewed. In the third step, TQM determinants are defined. Lastly, the emerging reflections and findings are presented along with implications, limitations, and suggestions for the future research.



ISSN 2076-9202

**Figure 2: Methodology of the paper**

## 4. TQM Practices

For many years quality has been the focus of attention of the organizations. However, the early attention was given to inspection, quality control, quality assurance, and TQM (Dale, 2003; Ahmad and Elhunim, 2014; Saleh et al, 2017) where all business components are engaged in the quality management principles application (Mehra et, al., 2001; Altayeb and Alhasanat, 2014, Saleh et al, 2017). Since the early appearance of TQM phenomenon as named by (Huggins, 1998), it was considered as the most effective approach to manage service quality (Chaston, 1994), key business management issue (Martínez#Lorente et, al., 1998), organizational philosophy (Mehra and Agrawal, 2003; Rawabdeh, 2008), and guiding principles (Rawabdeh, 2008) that aim to enhance competitiveness in the global marketplace (Motwani, 2001; Mehra and Agrawal, 2003; Altayeb and Alhasanat, 2014) through reducing costs and increasing productivity (Psomas et, al., 2014) of both physical and human assets of the organizations (Silva et, al., 2014).

Despite of the absence of consensus on the TQM definition (Graham et, al., 2014) and the continuous struggling to achieve clear and common definition (Yapa, 2012), there were some implicit agreement on the definition, scope, and key principles and concepts (Psomas et, al., 2014) that are vital for TQM efforts in the services organizations and important for achieving effective results from the TQM effort (Talib, 2010). However, the literature was very rich of research that discussed TQM factors, elements, and practices. For example, Mehra et, al. (2001) who conducted significant review for more than 70 papers and concluded that TQM implementation can be affected by at least 45 elements. However, they grouped these 45 elements into five factors.

Considerable efforts have also been made in the literature that focused on categorizing and constructing TQM frameworks. In this context, some researchers such as Zairi and Youssef (1995), Boon et, al., (2005), Fotopoulos and Psomas (2009), Psomas et, al. (2014), and Calvo-Mora et, al., (2014) differentiated between the "soft" TQM elements and the "hard" TQM elements.

As most of researchers in the literature tended to determine the factors affecting TQM implementation, TQM implementation become complex practice because of the increasing number of TQM elements (Chin et al., 2002; Sweis, 2009). Therefore, many of the researchers as well as businesses and even countries preferred to adopt and use the excellence models, awards, or prizes for the purpose of TQM elements categorization and as a helpful guidance for business excellence (Sabella et, al., 2014), Moreover, to be used as "how to" method in case of low organizational maturity and as a “measurement method” in case of high organizational maturity (Fotopoulos and Psomas, 2010).



*ISSN 2076-9202*

In the United States of America, the Malcolm Baldrige National Quality Award (MBNQA) considered as the most illustrious excellence model (Gouthier et, al., 2012) to acknowledge the US organizations for excellence for the three sectors: manufacturing, service, and small business (Rawabdeh, 2008). MBNQA provides seven-dimensional schema to assess the quality programs in the companies by focusing on customer satisfaction and continuous improvement of quality to achieve business excellence (Motwani, 2001).

In Europe, the European Foundation for Quality Management (EFQM) is the most illustrious business excellence model (Gouthier et, al., 2012) as a practical step to define the improvement activities toward successful TQM (Tarı, 2005) through the two dimensions of excellence, enablers and results (Shahin et, al., 2014). However, several countries built their localized business excellence models and awards that are mostly based on EFQM and MBNQA (Sweis. et al, 2013, Sweis et al. 2015). In this context, Mohammad et, al. (2011) listed 94 national business excellence awards.

## 5. Industry-Specific Quality and Accountability practices and Standards

Many attempts were found in the literature to adopt for-profit business management practices in the field of INGOs mostly with the increasingly competitive environments (Schwenger et al, 2014). In this context, Seybolt (2009) advocated that business management literature can be harnessed to add value to the humanitarian aid operations, and Lekorwe and Mpabanga (2007) recommended the NGOs to strengthen the strategic management, leadership, and operations' accountability and governance. However, Tajuddin and Ahmad (2013) advocated to the importance of long-term direction, people participation, high integrity and transparency, effective feedback responses, and quality culture dissemination to improve the service quality of NGOs.

Al-Tabbaa et, al. (2013) advocated that quality excellence models can be used in the context of NPOs and suggested three modifications on EFQM model criteria to be aligned with the specific needs of NPOs. However, they provided practical definition of the quality in this sector based on two dimensions (quality of management and beneficiaries' satisfaction).

The important role of NGOs enforces high level of expectations in the context of accountability to provide the evidence on results of interventions, to survive (Okorley and Nkrumah, 2012), and to ensure sustainability (Lekorwe and Mpabanga, 2007). In this context, NGOs are required to develop and implement need-based interventions, to practice good leadership, to promote learning, to provide quality resources (Okorley and Nkrumah, 2012), and to practice the effective management of these resources (Lekorwe and Mpabanga, 2007).

For the purpose of this review, the following quality and accountability standards that were lunched and adopted a large number of INGOs have been reviewed: The Code of Conduct for the International Red Cross and Red Crescent Movement and NGOs in Disaster Relief., People in Aid, the Active Learning Network for Accountability and Performance, the Sphere Project, and Humanitarian Accountability Partnership (HAP).

## 6. TQM Determinants for INGOS



ISSN 2076-9202

Based on the mentioned steps in methods section, the following TQM determinants were identified:

### 6.1.Leadership and management commitment

The commitment of top management, leadership, and strategic planning are the most important drivers of a successful TQM (Kutlu and Kadaifci, 2014) and play a major role toward enhancing the organizational performance (Valmohammadi, 2011). Thus, the top management must believe in TQM and must be committed to it (Boateng-Okrah and Fening, 2012). The leadership includes integrity, bravery, mercy, humor, emotion, and wisdom (Altayeb and Alhasanat, 2014). However, there were many styles of leadership discussed in the literature (Laohavichien et, al., 2011). In this context, Sabella et, al. (2014) pointed to the leadership by unifying the purpose, determining the strategic direction, and motivating and change, and Hardy (2007) pointed to the importance of leading by heart in addition to the head in the context of NGOs.

Leadership and management commitment have been considered as a key TQM pillar by the quality pioneers, and broadly adopted by the factor based literature, and by most of TQM models and excellence awards as well as field-specific frameworks. However, Boateng-Okrah and Fening (2012) pointed that transformational leadership does not have a direct impact on the NGOs effectiveness. He advocated on the significant role of transformational leadership in promoting NGOs organizational culture (Alawneh & Sweis, 2016).

In the non-profit sector, the literature stressed that top management has the focal responsibility of accountability (Geer et, al., 2008). However, the assessment tool of HAP (2010) focused on establishing and delivering approved accountability framework for both organization's staff and partners' staff as a key indicator of leadership and management commitment in the humanitarian work context.

### 6.2.Beneficiary Focus and participation

Despite of the marked plurality in accountabilities in the INGOs case (Davison, 2007), the beneficiary (the victim) still represents the key stakeholder in the humanitarian context who should be considered by for-profit organizations through the following considerations:

- It can be strongly argued that what has been discussed in the for-profit TQM literature under the title of "product design" by (Saraph et al., 1989; Flynn et al., 1994; McAdam and Henderson, 1998; MartínezLorente et, al., 1999; Motwani, 2001; Perdomo-Ortiz et al., 2006; Perdomo-Ortiz et al., 2009) can be smoothly adopted under the aspect of beneficiaries' participation in design of assistances and services as stated by the various humanitarian standards in terms of quality and accountability practices.
- Disseminating right, clear, accessible, timely, and understandable information regarding the interventions and activities (HAP, 2014) which can Seybolt (2009) help in overcoming the complexity and obstacles faced of the humanitarian work.
- Providing formal, visible, accessible, and safe feedback and complaint handling mechanism to ensure lift up of the voice of beneficiaries. Some of the literature such as McAdam and Henderson (1998) and Martínez-Costa and Martínez-Lorente (2008) considered feedback from the customers as one of TQM factors. However, Goetsch and Davis, (2013) and despite of its importance, named feedback as "after the fact" approach which should take less attention from



ISSN 2076-9202

the managers in comparison with the proactive approach of customers' engagement. However, the feedback and complaint handling mechanism imposes itself to be essential part of service quality as recognized by most of industry-specific standards.

### 6.3. Partnership management for sustainability (Local Implementing Partners)

In general, organizations in the third sector collaborate among each other to ensure resource acquisition and secure funding by exchanging resources and knowledge, to adhere and to conform to the external pressure of the working environment and field norms, to take benefit from the information streaming in risk mitigation, and to improve and expand the provided services (Proulx et, al., 2014; Sweis et al, 2014, Sweis et al. 2016). However, preliminary frustrations are always expected for NGOs when building cross-border partnerships the thing that can be essentially overcome by the close, open, and frequent communications (Kuijpers and Meershoek, 2013). Moreover, Fitzpatrick and Molloy (2014) advocated to the need for creating stronger partnerships by NGOs to implement the resilience building activities toward sustainable community resilience.

Unlike the Local NGOs and CBOs, the existence of INGOs is often considered as a temporary existence on the ground. Moreover, the local NGOs and CBOs often have more local knowledge of the targeted populations and more outreach capabilities to the affected people. In this context, Coate et, al. (2006) emphasized on the importance of partnerships between INGOs and Local NGOs with respect of delivery of aids and implementation of rehabilitation programs.

Stop awarding contracts based only on the low price as one of the Deming's commandments (Deming, 1982, 1986) and maintain quality and long term partnership management with the suppliers (Goetsch and Davis, 2013) has been extensively discussed in the literature.

### 6.4. Human Resources Focus

HR focus means how the organization empowers and involves its workforce (ASQ, 2014). According to Altayeb and Alhasanat (2014), human resources involvement, empowerment, and training are mandatory aspects toward TQM. However, Analoui and Samour (2012) indicated to the importance of strategic HR management to improve the strategic performance in NGOs.

Despite the fact that human resources are the origin of sustainable organizational competitive advantage in the global marketplace, non-profit sector has rarely been studied in comparison with for-profit sector in this context (Fenwick, 2005). However, the managers in non-profit organizations need to practice leading and managing behaviors differently from those in the for- profit organizations because of the differences between the sectors (Hamlin et, al., 2011). Many reasons make the HR focus to be one of the most important determinants of TQM in the INGOs context, for instance, the difference between management style in developing countries and the preferred style of international staff which can lead to dissatisfaction with the NGO managers among the relief workers (Cosgrave, 1997).

Lastly, HR focus as one of the TQM determinants mentioned in the related literature under many titles such as: "succeeding through the talent of people" (EFQM, 2014), "staff competency" (HAP, 2010), and "aid workers' performance" (Sphere, 2014). However, Sondhi and Nirmal (2013) pointed that the



ISSN 2076-9202

expected benefits from the strategic HR and talent management are also applicable in the non-profit sector as well (Sweis et al. 2018).

### 6.5.Process management, learning, and continuous improvement

Regardless the success or the failure, many organizations have adopted process management initiatives in order to achieve and sustain the competitive advantage (Jones and Lindeman, 2014). In this context, Steketee (2010) advocated on how process management can support the managerial problems in the treatment of social issues. However, Cheng and Chang (2012) provided case study on how quality concepts such as Lean Six Sigma can improve services provided by NPOs suffering from lack and instability of resource and requested to serve people within short timeframes.

In general, most of TQM literature discussed this determinant under the title of "process management" while some of the literature discussed it under the title of "continuous improvement" such as (Martínez-Costa and Martínez-Lorente, 2008; Sweis et al, 2019). However, EFQM (2014) clearly defined the role of stakeholders in the continuous improvement and systematic innovation and mentioned this determinant under the title of "harnessing creativity and innovation".

### 6.6.Use of quality information

Based on the reviewed literature in, the last TQM determinant adopted by this review is (using quality information). MBNQA presented this pillar under title of "measurement, analysis, and knowledge management" which refers to the extent to which organizations use data to support the processes and performance management (ASQ, 2014).

HAP (2010) pointed out the importance of using M&E results in the continual improvement effort. M&E is defined as the focal point of the governance system (Mackay, 2007) and feedback mechanism of the management framework which includes identifying indicators of performance, data collection system, and information recording and analysis which aims to feed the information into day-to-day management and decision making and to enhance the execution of the future projects as a result of the evaluation of the previous projects (Fiador, 2013, Sweis et al. 2016). However, almost all grants allocate specific part of the budgets for M&E. This is because the donors became more focused on measuring the impact of interventions to ensure the gained value from the paid money on the beneficiaries' life and to ensure the efficiency and effectiveness of the implementation by the INGOs. This view to the M&E was advocated by Mueller-Hirth (2012) in the South Africa case.

Practically, the M&E task forces bear the responsibility of managing the overall quality information. However, the quality information that can be used by the INGOs to support their interventions can be disaggregated at least over the following components:

1. Needs assessment for both, community level and household level to determine the gaps and the proposed areas and sectors of interventions (SNAP, 2014) and vulnerability assessment to determine the particular needs of beneficiaries from the humanitarian assistance.
2. Systematic monitoring, evaluation, and impact analysis which should be contributed in the programmatic improvements and should be reflected in the work plans (HAP, 2010).



ISSN 2076-9202

3. Humanitarian information management system. However, NGOs are concerned to use information systems similar to those in the private companies (Analoui and Samour, 2012) to provide detailed information about their activities and outcomes (Ivanovi, M. and Anti, 2008), to be far away from criticisms and to increase their level of accountability, and to ensure effective use of resources (Lewis and Madon, 2004). In this context, Lewis and Madon (2004) introduced case study on how information can be embedded into the social context.
4. Accessing and updating of the coordination information management systems that resulted from the coordination clusters, working groups, and consortium in the targeted areas. However, coordination information management systems are managed on the ground by either OCHA or UNHCR in most of the cases around the world.

## 7. Conclusions and implications for the further study

### Conclusions

In the midst of crises, managers in INGOs tend to focus on the humanitarian relief side of their interventions and neglect the issue of maintaining effective and sustainable business results. However, the subjects of effectiveness, sustainability of interventions, and beneficiaries' satisfaction began increasingly to take a more importance role in the donors' criteria for donations.

Learning from the for-profit literature and relating with the industry-specific practices and standards, this review discussed the extent of application of TQM practices in the INGOs interventions. As a result, Six TQM determinants with their key practices have been suggested to be taken into account by INGOs managers as shown in Figure2:



ISSN 2076-9202

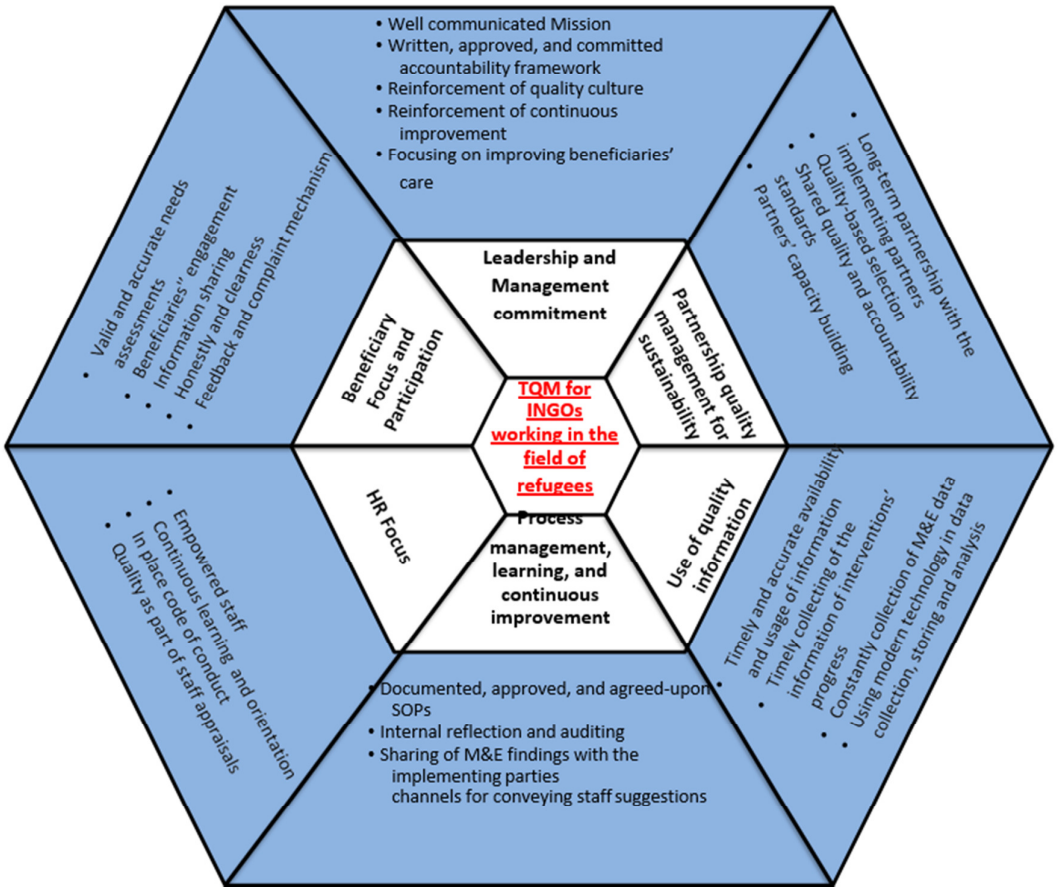


**Figure 3: key practices suggested by INGOs Managers**

The first TQM determinant identified by the review is the leaderships and management commitment. This determinant particularly means that INGOs must have a clear and well communicated mission/vision which reflects and promotes quality and accountability toward beneficiaries, donors, and other stakeholders. However, the availability of accountability framework which should be documented, approved, and committed by the top management is a critical indicator of excellent leadership and strong management commitment in INGOs context. Moreover, the leaders bear the responsibility of disseminating and reinforcement of the quality and beneficiary care culture among the staff and also with the implementing partners. Reinforcement of continuous quality improvements is also an important aspect of smart INGO leadership.

As significantly considered by the for-profit literature under the title of "customer focus", the second determinant identified by this review was adopted using the expression "Beneficiary focus and participation". With respect of the nature of humanitarian interventions, this determinant indicates firstly, to the importance of conducting accurate, valid, and scientific needs assessment as preliminary part on interventions. Secondly, to the principle of beneficiaries' engagement where the INGOs should consult their beneficiaries before designing the assistance, services, and making decisions related to them. However, this can be done practically through beneficiaries' committees as an example. Thirdly, to the necessity of sharing right, clear, honest, accessible, timely, understandable information with the beneficiaries and targeted population regarding the interventions and their limits, and lastly, to the



ISSN 2076-9202

obligation of maintaining formal, documented, visible, accessible, and safe feedback and complaint handling mechanism with engagement and commitment of the senior management and constant evaluation and measurement of the mechanism's effectiveness.

As most of INGOs interventions are implemented on the ground through local implementing partners or local CBOs, the third TQM determinant identified by the review is to maintain quality and long term partnership with those partners. The INGOs should consider the quality as the most important selection criteria for choosing the implementing partners, the quality standards and accountability frameworks should be shared and communicated effectively, and to be part of the grants and contracts. Capacity building of the partner's staff with respect of quality standards and accountability frameworks should not be neglected. Moreover, strategies, procedures, and budget to support the implementing partners in complying with the quality and accountability standards should be in place. Implementing the humanitarian interventions through quality partnerships can enhance the outreach capabilities and provide in-depth understanding of the targeted populations.

The fourth identified TQM determinant is the HR Focus. To be HR focused, INGOs should be committed to empower their staff, in particular those who are in direct contact with the beneficiaries, communicated and understandable code of conduct should be in place, all staff should understand their roles and responsibilities regarding quality and accountability and adhere to the quality and accountability standards that should be part of their appraisals. They also should be able to access the ongoing learning opportunities of quality and accountability. The INGOs should give specific attention to the staff in contact with the partners to make them fully aware about the quality and accountability standards and to work closely with the partners' staff on developing their capacities regarding quality and accountability standards as well.

Process management, learning, and continuous improvement formed the fifth TQM determinants advocated by this review for INGOs. With respect of the nature of INGOs interventions, this determinant materialized on the ground through maintaining documented, agreed upon, and approved SOPs, constantly practicing the internal reflections and auditing, sharing the findings of M&E and feedback from the beneficiaries with the staff, departments, and partners who implement the programs, and creating of a supportive environment for continuous improvement through facilitating the channels for conveying staff suggestions to the upper managerial levels.

The last identified TQM determinant is the use of quality information. Whereas the humanitarian decisions cannot be taken effectively without availability of timely and accurate information. The Information about implementation and progress of the humanitarian programs should be available, accurate, timely collected and distributed, and used widely in the agency. Information management system which stores and manages information about beneficiaries should be in place. Information management systems for the purpose of coordination with the other agencies should be constantly accessed and updated if applicable, M&E data should be constantly collected and shared, and the modern technologies of data collection, analysis, and disseminating should be harnessed for the purpose of accountability, accuracy, and facilitation.

**Suggestions for the further research**



*ISSN 2076-9202*

Through advocating of TQM determinants of survival for INGOs, this review sought to lay the foundation for the future debates regarding the overall quality obsessions in the humanitarian interventions, and to propose a seed TQM model for INGOs and for the benefit of vulnerable people. We therefore suggest further quantitative research to be carried out for the purpose of validation of the factors identified and to explore the validity and reliability of the proposed model.

## References

Abrunhosa, A. and Sá, P.M.E. 2008. "Are TQM principles supporting innovation in the portuguese footwear industry?",*Technovation* 28 ( 4): 208-221.

Abusa, F. M. and Gibson, P. 2013."Experiences of TQM elements on organisational performance and future opportunities for a developing country", *International Journal of Quality & Reliability Management* 30 (9): 920–941.

Abu-Hussein, R., Hyassat, M., Sweis, R., Alawneh, A. and Al-Debei, M. (2016), "Project management factors affecting the enterprise resource planning projects' performance in Jordan", *Journal of Systems and Information Technology*, Vol. 18 No. 3, pp. 230-254.

Ahire, S., Golhar, D. and Waller, M. 1996. "Development and validation of TQM implementation constructs", *Decision Sciences* 27 (1): 23-56.

Ahmad, M. M. and Elhunim R. 2014."Critical quality factors for successful TQM implementation in Libyan oil and gas sector", *Benchmarking: An International Journal* 21 (5): 713-733.

Alawneh, A. R., & Sweis, R. J. (2016), The relationship between emotional intelligence level and the effectiveness of a project manager: the case of Jordan, *International Journal of Information, Business and Management*, 8 (3),13.

Al-Tabbaa O, Gadd K, and Ankrah S. 2013. "Excellence models in the non-profit context: strategies for continuous improvement", *International Journal of Quality & Reliability Management* 30 (5): 590-612.

Al-Tabbaa, O. 2012. Nonprofit-Businesses Collaboration: Thematic Review and New Research Agenda, available at: http://ssrn.com/abstract¼2191540.

Altayeb, M. M. and Alhasanat, M. B. 2014."Implementing total quality management (TQM) in the Palestinian construction industry", *International Journal of Quality & Reliability Management* 31(8): 878–887.

America. 2013. "SIGNS OF THE TIMES", *America*, May 201 www.americamagazine.org.

American Society of Quality (ASQ). 2014, Accessed October 2014 *http://asq.org/learn-about-quality/malcolm-baldrige-award/overview/overview.html*.

Analoui, F. and Samour, A. 2012."Strategic management: the case of NGOs in Palestine", *Management Research Review* 35 (6): 473–489.

Analoui, F. and Samour, A. 2012."The managers' characteristics and their strategy development in the Palestinian NGOs", *Journal of Management Development* 31 (7): 691-699.

Ashley, S. and Faulk, L. 2010. "Nonprofit Competition in the Grants Marketplace Exploring the Relationship Between



*ISSN 2076-9202*

Nonprofit Financial Ratios and Grant Amount", *NONPROFIT MANAGEMENT & LEADERSHIP* 21 (1): 34–57.

Bennett, J. 2013. "Failure to adapt: aid in Jordan and Lebanon", *Forced Migration Review*, September 74-75.

Boateng-Okrah, E. and Fening, F. A. (2012),"TQM implementation: a case of a mining company in Ghana", *Benchmarking: An International Journal* 19 (6): 743–759.

Boon, O. K., Arumugam, V., and Hwa, T. S. 2005. "Does soft TQM predict employees' attitudes?", *The TQM Magazine* 17 (3): 279–289.

Brendan, U. and O'Dwyer, B. 2006. "On James Bond and the importance of NGO accountability", *Accounting, Auditing & Accountability Journal* 19 (3): 305–318.

Calvo-Mora, A., Pico´n, A., Ruiz, C., and Cauzo, L. 2014. "The relationships between soft-hard TQM factors and key business results", *International Journal of Operations & Production Management* 34 (1): 115-143.

Chaston, I. 1994. "Managing for Total Training Quality", *Training for Quality* 2 (3): 11–14.

Cheng, C. and Chang, P. (2012), "Implementation of the Lean Six Sigma framework in non-profit organizations: A case study", Total Quality Management, Vol. 23, No. 4, 431–447.

Chin, K.-S., Pun, K.-F., Xu, Y. and Chan, J. S. F. 2002. "An AHP based study of critical factors for TQM implementation in Shanghai manufacturing industries", *Technovation* 22: 707–715.

Coate, B., Handmer, J., and Choong, W. 2006. "Taking care of people and communities", Disaster *Prevention and Management: An International Journal* 15 (1): 135-145.

Connollym, C. and Kelly, M. 2011. "Understanding accountability in social enterprise organizations: a framework", *Social Enterprise Journal* 7 (3): 224–237.

Cordery, C. and Sinclair, R. 2013. " Measuring performance in the third sector", *Qualitative Research in Accounting & Management* 10 (3/4): 196-212.

Cordery, C.J., Proctor-Thomson, S.B. and Smith, K.A. 2013. "Towards communicating the value of volunteers: lessons from the field", *Public Money & Management* 33 (1): 47-54.

Cosgrave, J.1997. "Are international staff hard to manage?", *Disaster Prevention and Management: An International Journal* 6 (4): 245-251.

Cunningham, I. 2010. "Drawing from a bottomless well? Exploring the resilience of value-based psychological contracts in voluntary organizations", *International Journal of Human Resource Management* 21 (5): 699–719.

Dale, B.G. 2003. Managing Quality, 4th ed., *Blackwell Publishers*, Oxford.

Davison, J. 2007. "Photographs and accountability: cracking the codes of an NGO", *Accounting, Auditing & Accountability Journal* 20 (1): 133-158.

De Jager, H.J. and Nieuwenhuis, F.J. 2005. "Linkages between total quality management and the outcomes-based approach in



***ISSN 2076-9202***

an education environment", *Quality in Higher Education* 11 (3): 251-260.

Deming, W.E. 1982. "Quality, Productivity and Competitive Position", *MIT Center for Advanced Engineering*, Cambridge, MA.

Deming, W.E. 1986. "Out of the Crisis", *MIT Center for Advanced Engineering*, Cambridge, MA.

Ebrahimi Z F, Chong C W, and Rad R H. 2014. " TQM practices and employees' role stressors", *International Journal of Quality & Reliability Management* 31 (2): 166-183.

European Foundation for Quality Management (EFQM) Excellence Model. 2010. Accessed October 2014, from *http://www.efqm.org/efqm-model/fundamental-concepts*.

Fenwick, M. 2005. "Extending strategic international human resource management research and pedagogy to the non-profit multinational", *The International Journal of Human Resource Management* 16 (4): 497-512.

Fiador,V. O. 2013."Determinants of financial governance practices: evidence from NGOs in Ghana", *International Journal of Sociology and Social Policy* 33 (1/2): 114-130.

Fitzpatrick, T. and Molloy, J. 2014. "The Role of NGOs in Building Sustainable Community Resilience: ", *International Journal of Disaster Resilience in the Built Environment* 5 (3): -.

Flynn, B., Schoeder, R. and Sakibaba, S. 1994). "A framework for quality management research and associated measurement instrument", *Journal of Operations Management* 11: 339-66.

Fotopoulos, C. V. Psomas, E. L. 2010."The structural relationships between TQM factors and organizational performance", *The TQM Journal* 22 (5): 539–552.

Fotopoulos, C. B. and Psomas, E. L. 2009."The impact of "soft" and "hard" TQM elements on quality management results", *International Journal of Quality & Reliability Management* 26 (2): 150–163.

Geer, B. W., Maher J. K., and Cole, M. T. (2008), "The Importance of Transformational Leadership and Commitment to Operating Standards for Nonprofit Accountability", *Public Performance & Management Review* 32 (1): 51–75.

Goetsch, D.L. and Davis, S.B. 2013. Quality Management for Organizational Excellence, *Pearson*, Upper Saddle River, NJ.

Gouthier, M., Giese, A., and Bartl, C. 2012. "Service excellence models: a critical discussion and comparison", *Managing Service Quality: An International Journal* 22 (5): 447–64.

Graham, N. K., Arthur, Y. D., and Mensah, D. P. 2014. "Managerial role in ensuring successful total quality management programme in Ghanaian printing firms", *The TQM Journal* 26 (5): 398–410.

Gray, R., Bebbington, J., and Collison, D. 2006. "NGOs, civil society and accountability: making the people accountable to capital", *Accounting, Auditing & Accountability Journal* 19 (3) 319-348.

Hamlin, R. G., Sawyer, J., and Sage, L. 2011. "Perceived managerial and leadership effectiveness in a non-profit organization: an exploratory and cross-sector comparative study", *Human Resource Development International* 14 (2): 217–234.



***ISSN 2076-9202***

Hatamleh,M., M Hiyassat, GJ Sweis, RJ Sweis, (2018), Factors affecting the accuracy of cost estimate: case of Jordan, Engineering, Construction and Architectural Management, 25 (1), 113-131.

Huang, H. J. and Hooper, K. 2011. "New Zealand funding organisations", *Qualitative Research in Accounting &* Management 8 (4): 425-449.

Huggins L. P. 1998. "Total quality management and the contributions of A.V. Feigenbaum", *Journal of Management History* 4 (1): 60-67.

Hughes, J. P. 2013. "A New Cost Efficiency Measure for Not-for-Profit Firms: Evidence of a Link Between Inefficiency and Large Endowments", *International Atlantic Economic Society* 41: 279–300.

Humanitarian Accountability Partnership (HAP). 2010. Accessed September 2014 *http://www.hapinternational.org/.*

International Organization of Standardization (ISO). 2014. Accessed November 2014 *https://www.iso.org.*

Ivanovi, M. and Anti, Z. 2008. "Evaluation of Results of Nonprofit Organizations", *Management*, UDC: 005.6:061.2; 005.52:330.133.1.

Jandali, D. and Sweis, R. (2019), "Factors affecting maintenance management in hospital buildings", *International Journal of Building Pathology and Adaptation*, Vol. 37 No. 1, pp. 6-21. https://doi.org/10.1108/IJBPA-12-2017-0064

Jones, J. L. S. and Linderman, K. 2014. "Process management, innovation and efficiency performance", *Business Process Management Journal* 20 (2): 335–358.

Kim, D., Kumar, V. and Kumar, U. 2012. "Relationship between quality management practices and innovation", *Journal of Operations Management* 30 (4): 295-315.

Khlaifat, D., RE Alyagoub, RJ Sweis, GJ Sweis, (2019), Factors leading to construction projects' failure in Jordon, *International Journal of Construction Management,* 19 (1), 65-78.

Kuijpers, L. M. F. and Meershoek, A. M. 2013. "NGO–Business Collaboration in Kenya", *Greenleaf Publishing* 6: 91-105.

Kutlu, A. C. and Kadaifci, C. 2014. "Analyzing critical success factors of total quality management by using fuzzy cognitive mapping", *Journal of Enterprise Information Management* 27 (5): -.

Lambell, R., Ramia, G., Nyland, C. and Michelotti, M. 2008. "NGOs and international business research: Progress, prospects and problems", *International Journal of Management Reviews* 10 (1): 75–92

Laohavichien, T., Fredendall, L. D., Cantrell, R. S. 2011. "Leadership and quality management practices in Thailand", *International Journal of Operations & Production Management* 31 (10): 1048-1070.

Lecy, J.D., Schmitz, H.P., and Swedlund, H. 2012. "Non-governmental and not-for-profit organizational effectiveness: a modern synthesis", *International Journal of Voluntary and Nonprofit Organizations* 23 (2): 434-457.

Lekorwe, M. and Mpabanga, D. 2007. "Managing Non-Governmental Organizations in Botswana", *The Innovation Journal* 12 (3): Article 10.



***ISSN 2076-9202***

Lewis, D. and Madon, S. 2004. “Information Systems and Nongovernmental Development Organizations: Advocacy, Organizational Learning, and Accountability”, *The Information Society* 20: 117–126.

Mackay, K.R. 2007. “How to Build M&E Systems to Support Better Government", Vol. 847, *World Bank Independent Evaluation Group*, Washington, DC.

Madu, C. N. and Kuei, C. 2014. "Disaster relief supply chain quality management (DRSCQM)", *International Journal of Quality & Reliability Management* 31 (9) 105-106.

Mahalinga M. S. A. S. and Suar, D. 2012. “Transformational Leadership, Organizational Culture, Organizational Effectiveness, and Programme Outcomes in Non-Governmental Organizations”, *International society of for third sector research*, 23: 684–710 DOI 10.1007/s11266-011-9230-4.

MartínezLorente, A. R., Dewhurst, F., and Dale, B. G. 1999. "TQM and business innovation", *European Journal of Innovation Management* 2 (1): 12-19.

Martínez#Lorente, A. R., Dewhurst, F., and Dale B. G. 1998. "Total quality management: origins and evolution of the term", *The TQM Magazine* 10 (5) 378-386.

Martínez-Costa M. and Martínez-Lorente, A.R. 2008. “Does quality management foster or hinder innovation? An empirical study of Spanish companies”, *Total Quality Management & Business* Excellence 19 (3): 209-221.

McAdam, R. and Henderson, J. 2004."Influencing the future of TQM: internal and external driving factors", *International Journal of Quality & Reliability Management* 21 (1): 51-71.

McPhee, W. 2014. "A new sustainability model: engaging the entire firm", *Journal of Business Strategy* 35 (2) 4-12.

Mehra, S. and Agrawal, S. P. 2003. “Total quality as a new global competitive strategy", *International Journal of Quality & Reliability Management* 20 (9): 1009-1025.

Mehra, S., Hoffman, J. M., and Sirias, D. 2001. "TQM as a management strategy for the next millennia", *International Journal of Operations & Production Management* 21 (5/6): 855-876.

Mensah J O, Copuroglu G, and Fening F A. 2012. "The status of total quality management (TQM) in Ghana A comparison with selected quality awards winners from Turkey ", *International Journal of Quality & Reliability Management* 29 (8): 851-871.

Mohammad, M., Mann, R., Grigg, N., and Wagner, J. P. (2011), “Business Excellence Model: An overarching framework for managing and aligning multiple organisational improvement initiatives”, *Total Quality Management* 22 (11): 1213–1236.

Motwani, J. 2001. "Measuring critical factors of tqm", *Measuring Business Excellence* 5 (2): 27–30.

Mueller-Hirth N. 2012. "If You Don’t Count, You Don’t Count: Monitoring and Evaluation in South African NGOs", *Development and Change* 43(3): 649–670.

O’Brien, E. and Tooley, S. 2013. “Accounting for volunteer services: a deficiency in accountability”, *Qualitative Research in Accounting & Management* 10 (3/4): 279-294.



***ISSN 2076-9202***

Okorley, E. L. and Nkrumah, E. E. 2012. "Organisational factors influencing sustainability of local non-governmental organisations", *International Journal of Social Economics* 39 (5): 330-341.

Perdomo-Ortiz, J., González-Benito, J. and Galende, J. 2006. "Total quality management as a forerunner of business innovation capability", *Technovation* 26 (10): 1170-1185.

Perdomo-Ortiz, J., González-Benito, J. and Galende, J. 2009. "The intervening effect of business innovation capability on the relationship between total quality management and technological innovation", *International Journal of Production Research* 47 (18): 5087-5107.

Phil, S. 2013."Charity performance reporting: comparing board and executive roles", *Qualitative Research in Accounting & Management* 10 (3/4): 347-368.

Powell, T.C. 1995. "Total quality management as competitive advantage: a review and empirical study"', *Strategic Management Study* 16: 15-37.

Prajogo, D.I. and Sohal, A.S. 2003. "The relationship between TQM practices, quality performance, and innovation performance", *International Journal of Quality & Reliability Management* 20 (8): 901-918.

Prajogo, D.I. and Sohal, A.S. 2004. "The multidimensionality of TQM practices in determining quality and innovation performance – an empirical examination", *Technovation* 24 (6): 443-453.

Proulx, K. E., Hager, M. A., and Klein, K. C. 2014."Models of collaboration between nonprofit organizations", *International Journal of Productivity and Performance Management* 63 (6): 746-765.

Psomas, E., Vouzas, F., and Kafetzopoulos, D. 2014."Quality management benefits through the "soft" and "hard" aspect of TQM in food companies", *The TQM Journal* 26 (5): 431–444.

Rawabdeh I. A. 2008. "Jordan Quality Award (King Abdullah II Award for Excellence (KAIIAE))", *Benchmarking: An International Journal* 15 (1): 4-24.

Sabella, A. R., Kashou, R., and Omran, O. 2014. "Quality management practices and their relationship to organizational performance", *International Journal of Operations & Production Management* 34 (12): -.

Salaheldin, I. S. 2009. "Critical success factors for TQM implementation and their impact on performance of SMEs", *International Journal of Productivity and Performance Management* 58 (3): 215-237.

Saleh, F., RJ Sweis, BY Abdelqader, AB Abdallah, M Arafeh, (2017), The effect of TQM dimensions on the performance of international non-governmental organisations operating in Jordan, *International Journal of Productivity and Quality Management* 21 (4), 443-459.

Saleh, R., Sweis, R., (2017) The relationships between soft/hard total quality management practices and operational performance in Jordanian manufacturing organisations, *International Journal of Management Concepts and Philosophy* 10 (4), 345-377.

Saraph, J., Benson, P., and Schroeder, R. 1989. "An instrument for measuring the critical factors of quality management",



***ISSN 2076-9202***

*Decision Sciences* 20: 810-29.

Schwenger, D., Straub, T., and Borzillo, S.(2014. "Non-governmental organizations: strategic management for a competitive world", *Journal of Business Strategy* 35 (4): 11-19.

Seybolt, T. B. 2009. "Harmonizing the Humanitarian Aid Network: Adaptive Change in a Complex System", *International Studies Quarterly* 53: 1027–1050.

Shahin, A., Jamkhaneh, H. B., and Cheryani, S. Z. H. 2014. "EFQMQual: evaluating the implementation of the European quality award based on the concepts of model of service quality gaps and ServQual approach", *Measuring Business Excellence* 18 (3): 38-56.

Silva, G. M., Gomes, P. J., Lages, L. F., and Pereira, Z. L. 2014. "The role of TQM in strategic product innovation: an empirical assessment", *International Journal of Operations & Production Management* 34 (10): 1307-1337.

Singh, P.J. and Smith, A.J.R. 2004. "Relationship between TQM and innovation: an empirical study", *Journal of Manufacturing Technology Management* 15 (5): 394-401.

Slack, N., Chamber, S. and Johnston, R. 2010. *Operation Management*, Prentice-Hall, Englewood Cliffs, NJ.

Sondhi, V. and Nirmal, P. S. 2013. "Strategic Human Resource Management: A Reality Check", *Review of Management* 3 (1/2): 4-10.

Steketee E. F. 2010. "Process management as a lever for managing social problems", *The TQM Journal* 22 (4): 379-385.

Suifan, T. S., Abdallah, A. B., and Sweis, R. J. (2015), "The Effect of a Manager's Emotional Intelligence on Employees Work Outcomes in the Insurance Industry in Jordan", International Business Research, Vol. 8 No.9, pp. 67.

Sweis, R.J., Al-Mansour, A., Tarawneh, M. and Al-Dweik, G. (2013) 'the impact of total quality management practices on employee empowerment in the healthcare sector in Saudi Arabia: a study of King Khalid Hospital', International Journal of Productivity and Quality Management, Vol. 12, No. 3, pp.271–286.

Sweis, R. j., (2009), Some construction quality human-related factors in the Jordanian housing sector, Architectural Science Review 52 (1), 48-53.

Sweis, R., Saleh, R., Al-Etayyem, R., Qasrawi, B. and Al-Mahmoud A. (2016), "Total quality management practices and organisational performance in Jordanian courier services" International Journal of Productivity and Quality Management, Vol. 19 No. 2, pp. 258-276.

Sweis, R., RO Shannak, AAA El Samen, T saleh Suifan, (2014), Factors affecting quality in the Jordanian housing sector, International Journal of Housing Markets and Analysis 7 (2), 175-188.

Sweis, R. J., Al Sharef, R., Jandali, D., Obeidat, B. Y., & Andrawes, N. (2018). The relationship between project team members' effectiveness and acknowledgment of talent: Team members' perspective. International Journal of Construction Education and Research, 14(2), 141–160.

Sweis, R., Diab, H., Mahmoud Saleh, F., Suifan, T. and Dahiyat, S. (2016), "Assessing service quality in secondary schools:



***ISSN 2076-9202***

the case of Jordan", Benchmarking: An International Journal, Vol. 23 No. 5, pp. 1207-1226. https://doi.org/10.1108/BIJ-04-2015-0031.

Sweis, R., Saleh, R., Sharaireh, Y. and Moarefi, A. (2019), "An investigation of the satisfaction of project managers and team members", International Journal of Quality & Reliability Management, Vol. 36 No. 5, pp. 708-734. https://doi.org/10.1108/IJQRM-03-2018-0071

Syrian Needs Assessment Project (SNAP). 2014. Accessed November 2014 *http://www.acaps.org/en/pages/syria-snap-project.*

Tajuddin, A. F. A. and Ahmad S. Z. 2013. "Impact of environmental scanning on the organisational performance of local authorities in Malaysia", *Transforming Government: People, Process and Policy* 7 (3): 342-363.

Talib, F. 2010. ” Critical Success Factors of TQM in Organizations”, *Services Marketing Quarterly* 31: 363–380.

Tarı, J. J. 2005. “Components of successful total quality management”, *The TQM Magazine* 17 (2) 182-194.

Unerman, J. and O’Dwyer, B. 2010. ” NGO accountability and sustainability issues in the changing global environment”, *Public Management Review* 12 (4): 475–486.

United Nations Environment Programme (UNEP). 2003. “Building Professionalism in NGOs/NPOs”, *UNEP-IETC.*

Valmohammadi, C. 2011. "The impact of TQM implementation on the organizational performance of Iranian manufacturing SMEs", *The TQM Journal* 23 (5): 496-509.

Willets, P. 2002. “What is a Non-Governmental Organization", *Article 1.44.3.7 in UNESCO Encyclopedia of Life Support Systems*, World Bank.

Yapa, S. 2012. "Total quality management in Sri Lankan service organizations", *The TQM Journal* 24 (6): 505–517.

Zairi, M. and Youssef, M. A. 1995. "Benchmarking critical factors for TQM", *Benchmarking for Quality Management & Technology* 2 (1): 5-20.

Zeitz, G., Johannesson, R. and Ritchie, J.E. Jr. 1997. “An employee survey measuring total quality management practices and culture”, *Group and Organization Management* 22 (4): 414-44.

Zulkhibri, M. 2014. "Regulation governing non-profit organisations in developing countries", *International Journal of Law and Management* 56 (4): 251-273.



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# A COMPARATIVE STUDY: IMPACT OF BEST HRM PRACTICES ON HRM OUTCOMES IN THE ORGANIZATIONS OF PAKISTAN & CHINA

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**Abstract**
Purpose of this study was to scrutinize the impact of best Human Resource Management (HRM) practices on Human Resource Management (HRM) outcomes in the organizations of Pakistan (PK) & China (CN). This is a comparative study between the public and private organization of Pakistan and China. Data of the study was collected through structured questionnaire comprising 54 items mainly related to Best HRM Practices i.e. Recruitment & Selection, Training & Development, Performance Appraisal, Promotion, Compensation & Social benefits, and HR Outcomes i.e. Employee Satisfaction (ES), Employee Commitment (EC) and Employee Retention (ER). This is quantitative research in which Multiple Regressions, Cronbach alpha, Pearson correlation coefficient was used for various analyses of this study. The findings of the research revealed that bundle of best Human Resource Management (HRM) practices are significant predictors of HR output i.e. Employee Satisfaction, Commitment and Retention for both countries. The results of this study also revealed that compensation and social benefits practice had the strongest effect, for both countries i.e Pakistan & China, on determining the HRM Output i.e. employee satisfaction, commitment and retention. In the end, the recommendation was made for the improvement of best HRM Practices.
**Key Words:** HRM Practices, HRM Output, Pakistan & China.

## 1. Introduction

This study explores the best Human Resource Management (HRM) practices and their outcomes in private and public organizations of Pakistan (PK) & China (CN), and investigates the impact of best Human Resource Management (HRM) practices on their outcomes like Employee Satisfaction (ES), Employee Commitment (EC) and Employee Retention (ER).

Human Resource (HR) means people that work in a company and the contribution they make with their skills, knowledge and competence (Dransfield 2000).HRM practices refer to organizational activities which are directed towards managing the pool of human resource and to ensure that the resources are



*ISSN 2076-9202*

employed towards the fulfilment of organizational goals (Schuler & Jackson, 1987; Schuler & MacMillan, 1984; Wright & Snell, 1991). Bowen & Ostroff (2004) defined the HRM process influence the desired behaviors employees by provided practices, whereas Ehrnrooth & Bjorkman (2012) extended definition: The "HRM process" refers to the generic process qualities of HRM practices that impact on employee and organizational performance through their influence on employees' understanding of performance expectations and on their ability, opportunity, and motivation to comply with these expectations.

Human Resources Management practices (HRM) plays a very important role in achieving an organization objective efficiently and also maintains competitive advantage. HRM may be an important source of competitive advantage; Barney (1991) argued that when resources are valuable, rare, inimitable and well organized, then it leads to sustainable competitive advantages. In any organization HRM practices utilize and manage their human resources efficiently and effectively and try to get maximum out of them, the objective is to achieve organization goal that is maximum profit. Managing people at work is concerned with deciding approaches and making plans for finding ways of how they perform in the way to achieve company goals (Salanova&Kirmanen 2010). The HRM practices, systems or strategies have often been referred to as high involvement or high-performance work practices. Lado and Wilson (1994, p.701) defines a system as "a set of distinct but interrelated activities, functions, and processes that are directed at attracting, developing, and maintaining (or disposing of) a firm's human resources". Thus, a good HRM system consists of a set of practices that enhance employee skills and abilities, provide information, empowerment and participation in decision making, and motivation (Applebaum et al., 2000; Pfeffer, 1998).

This paper is presented in a sequential manner; Section 1 describes the brief introduction & Literature review of the paper is in Section 2. Research methodology including objective, design of research and data collection methods is defined in Section 3. Section 4 presents Analysis of general information and Reliability analysis, Section 5 is dedicated to Hypothesis testing and comparative discussion & conclusion is presented in Section 6.

## 2. Literature Review

Best practice approach is the collection of best HRM practices that can be used in any organization and will produce positive results irrespective of firm conditions (Pfeffer, 1998; Huselid, 1995; Wood and Albanese, 1995). This study focus on Best HRM practices approach which is most essential for maximum benefits and positive result, authors have presented some best HRM practices in this paper. HRM practices are the mechanisms through which employee skills can be developed (Park et al., 2003, p. 1394) and shape the skills, attitudes, and behaviour of individuals to perform their work and thus achieve organizational goals (Martinsons, 1995; Collins & Clark, 2003). The best practices approach consistent with the best contents of HRM system, a set of HR policies and practices through which organizations can achieve the best performance. The best-fit approach explains the conditions that illuminate the ways through which HR practices influence employees and organizational performance. However, it has been more than 30 years that the black box between HPHR practices and employee's performance remained



ISSN 2076-9202

fascinating research question for academics, researchers, and practitioners (Huselid, 1995; Sanders, Shipton, & Gomes, 2014; Saridakis et al., 2017).

Different combinations of HRM practices have been used to achieve specific organizational objectives. Those combinations often referred to as High-Commitment Human Resource (HCHR) practices, High-Involvement Human Resource (HIHR) practices, and High-Performance Human Resource (HPHR) practices (Jiang et al., 2012). There are various terms where the HR best practices lead to superior performance, such terms include high performance work systems (Huselid, 1995) or also known as HPWP systems (Appelbaum and Batt, 1994), best HRM practices (Pfeffer, 1994; Osterman, 1994), high commitment practices (Wood, 1996) and higher productivity and product quality practices (Ichniowski et al., 1997).

Bell, Lee, and Yeung (2006) and Boon and Kalshoven (2014) used a combination of five HR practices (Job design, recruitment and selection, training and development, performance appraisal, and compensation) and referred them HCHR practices. O'Neill et al. (2011) labelled four HR practices–empowerment, information sharing, rewards, and increasing knowledge practices–as HIHR practices. In the literature, HIHR and HPHR practices are used interchangeably because some research believes that both terms propagate similar characteristics (O'Neill et al., 2011). Also, Combs et al. (2006) proposed that HPHR practices include incentive compensation, employee participation, training, selectivity and flexible work arrangements.

In this research, researcher have adopted those best HR practices most consistent with the prior theoretical and empirical work in the field (Arthur, 1994;Lado& Wilson, 1994; Wright et al., 1994; Dyer & Reeves, 1995; Huselid, 1995 ; McDuffie,1995; Berker & Gerhart, 1996; Koch & McGrath, 1996; Ulrich, 1997). These practices included aspects like Recruitment & Selection (R&S), Training & Development (T&D), performance evaluation (PE), and Merit Base Promotion and Compensation & Social benefits.

Researchers choose different theoretical perspectives to investigate the "black box" between HR practices and outcomes such as the effect of single HR practice versus a set or bundle of practices (Collins & Smith, 2006; O'Neill et al., 2011). Single HR practice specifically demonstrates that how much a practice contributes to employees or organizational performance (Takeuchi, Lepak, Wang, & Takeuchi, 2007; Sumelius, et al., 2014). Whereas a set of HR practices propagate that practices reinforce each other and contribute to employees' knowledge, motivation, and skills. Many researchers have concluded that collective effect of HPHR practices is greater than the sum of the individual parts (Wall, 2005; Combs, Liu, Hall, & Ketchen, 2006; Saridakis et al., 2017). Similarly, Katou, Budhwar, and Patel (2014) demonstrate that research focuses on HPHR practices and performance relationship has moved from the effect of individual HR practice to set of practices and HRM system.

Many researchers have pointed out that HRM practices impact on the outcomes such as employee commitment, employee presence, the social climate between workers and management, employee satisfaction, employee involvement, employee trust, employee loyalty, employee retention, organizational fairness (Edger & Geare, 2005; Paauwe & Richardson, 1997 & Storey, 1989). Some authors have indicated that these outcomes and HRM practices can lead to firm performance such as profits, the market



ISSN 2076-9202

value of the company, market share, increase in sales, productivity, product service quality, customer satisfaction, development of products or services and future investments. The HRM outcomes are, in turn, expected to explain some of the variances in firm performance (Becker et al., 1997; Guest, 1997. In this study, three HR outcomes have been used to test the impact of HRM practices on HR outcomes i.e. Employee Satisfaction (ES), Employee Commitment (EC) and Employee Retention (ER).

This Comparatives study is conducted for identifying Best HR practices and measuring the impact of these best HR practices on HR outcomes in public and private organization of Pakistan (PK) & China (CN). Very few studies have been found on the best HRM practices approach, this study focus on identifying Best HR practice that will lead towards achieving HR outcomes in both countries i.e Pakistan and China. Following are the main hypothesis of the study are;

*H1: Best HRM practices are positively related to better Employee Satisfaction (ES).*
*H2: Best HRM practices are positively related to better Employee Retention (ER).*
*H3: Best HRM practices are positively related to better Employee Commitment (EC).*

## 3. Research Methodology

The quantitative research approach has been chosen for this study. Quantitative research is appropriate for measuring both attitudes and behaviour (Malhotra & Bikes 2003). The population of this study was the managerial & non-managerial employees working in different departments of the public and private organization in both countries. The sample of this study consisted of 428 (PK=175, China=253) respondents who are working in the different departments public and private sectors organizations in both countries. In this study, non-random probability sampling technique is used for selecting the respondent.

In Pakistan, the main correspondents are based in the capital i.e. Islamabad and Rawalpindi biggest market for the employee decisions. whereas in China main correspondent are based in Eleven (11) cities of five major provinces of China i.e Shaanxi, Shandong, Jiangsu, Henan and Hubei. The questionnaire has been translated into the Chinese language and then distributed to 11 main cities of China. A Survey-based technique has been used for collecting primary data for this research, Adaptive Questionnaire technique is used for questionnaire development. This structured questionnaire has been developed first in the main English language, further, it was translated in the Chinese language for collecting primary data in China. The Data was analyzed using the SPSS (Statistical Package for Social Sciences) Statistics 20 software package. The descriptive statistics were used to analyze the data including means, standard deviations, frequencies, and percentages. Cronbach alpha is a measure for the internal consistencies of the items that together cover the specific factor Nunnally (1978). Cronbach's alpha is 0.917 for all the dimensions (30 dimensions) of Best HRM practices & an alpha value for all the dimensions of HR outcomes is 0.891. These statistics reveal that the internal consistency of items to the concept is good.



ISSN 2076-9202

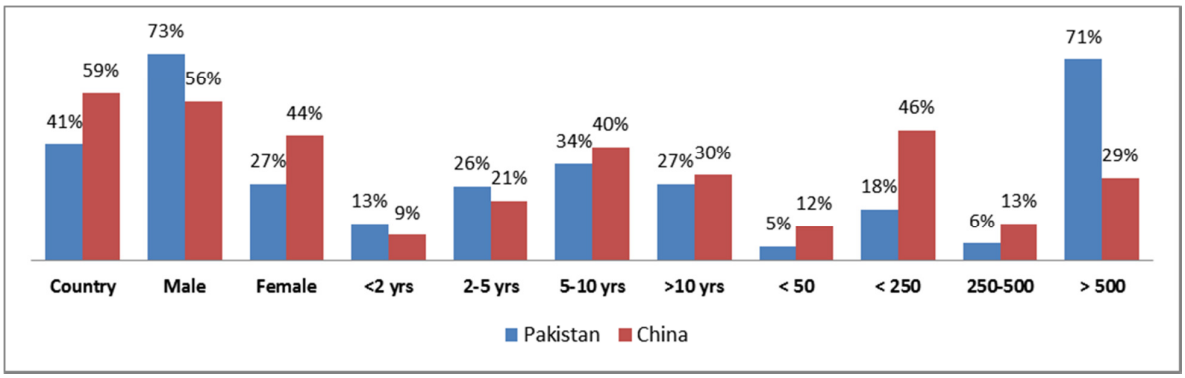
## 4. Analysis of General Information

Five questions have been used for collecting general information includes country, gender, company, service period and size of the company in the public & private sector of Pakistan & China.

Table 1: Analysis of General Information

| | Pakistan | | | China | | |
|---|---|---|---|---|---|---|
| | **N** | **Mean** | **Mode** | **N** | **Mean** | **Mode** |
| **Gender** | 175 | 1.27 | 1 | 253 | 1.44 | 1 |
| **Company category** | 175 | 1.48 | 1 | 253 | 1.48 | 1 |
| **Experience** | 175 | 2.75 | 3 | 253 | 2.9 | 3 |
| **Company size** | 175 | 3.42 | 4 | 253 | 2.58 | 2 |

Gender distribution in Pakistan results from the analysis (Table.1 & Graph 1) indicated that Mean value is 1.27. This indicates that most of the respondents in the sample consisted from male employees (73%) whereas in China Mean value is 1.44 for gender distribution, demonstrated that most of the respondents are male but in comparison with Pakistan, mean value (1.47) is higher than Pakistan (1.27). It shows that female participation (44%) is more in China than Pakistan. Results indicate that both in China and Pakistan that mode value is 1 for company category of respondents. This indicates that most of the respondents in the sample are from public sector organization in both countries. According to the results of Table.1 & Graph. 1 indicates that mode value is 3 for a service period of respondents in both countries and mean value in Pakistan(2.75) and China (2.90) which is near to three (5-10 year). These figures indicate that most of the respondents lie in the range of 5-10 years( 34%-40%) service period in both countries. (Table.1).In Pakistan Mean value for the size of an organization is 3.42 in Pakistan and mode is 4. These figures indicate that High number respondents belong to medium to the large organization (Table.1).Whereas in China mean value is 2.58 and mode is 2, which indicates that mostly respondent lies in medium organization.




Graph1: Analysis of General Information.



ISSN 2076-9202

## 5. Hypothesis Testing

The objective of the study was to identify the relationship between best HRM and HR Output i.e. Employee Satisfaction (ES), Employee Retention (ER) and Employee Commitment (EC) in public and private sector of Pakistan (PK) & China (CN). The dependent variable for this hypothesis is; Employee Satisfaction (ES), Employee Retention (ER) and Employee Commitment (EC). Independent variables are all five best HRM practices include Recruitment & Selection (R& S), Training & Development (T& D), Performance Appraisal (PA), Promotion and Compensation and Social Benefits.

Multiple regression analysis and correlation analysis were conducted to test the hypothesis of this study. Correlation is a measure of the relationship between two variables. In this study, the adjusted R square, *F*-value and *t*-value from the SPSS output have been used to interpret the results of regression analysis.

**Hypothesis 1: Best HRM practices are positively related to better Employee Satisfaction**

We have initially considered at the correlations between best HRM practices and Employee Satisfaction (ES). Results in Table 2 shows that there are strong and positive relationships between ES and compensation & social benefits (r=0.778) in Pakistan. There is a moderate and positive relationship between ES and PA, promotion, T &D & R&S. Whereas in China, there are strong and positive relationships between ES and compensation & social benefits promotion, PA, T & D and R & S. Pearson correlation coefficients illustrate that there is a positive relationship between all best HR practices and ES at the significant level 1% in both countries PK & China.

Table 2: Result of Pearson correlation coefficients best HR practices and E.S.

| | **R.S** | **T & D** | **PA** | **Promotion** | **Comp** |
|---|---|---|---|---|---|
| **Correlation Coefficient (r) in Pakistan** | 0.396** | 0.413** | 0.473** | 0.473** | 0.778** |
| **Coefficient (r) in China** | 0.580** | 0.655** | 0.648** | 0.647** | 0.695** |

** Significant at 1% level



*ISSN 2076-9202*

Table 3: Result of regression analysis for Employee Satisfaction

| **ANALYSIS OF VARIANCE** | | | | |
|---|---|---|---|---|
| | **Pakistan** | | **China** | |
| Adjusted R- squared | 0.611 | | 0.534 | |
| | F ( 55.656 ) p = .000 | | **F ( 58.795) p = .000** | |
| | ***Coefficients(B)*** | ***P-value*** | ***Coefficients(B)*** | ***P-value*** |
| Recruitment & Selection | 0.124 | 0.062 | 0.045 | 0.579 |
| Training & Development | 0.038 | 0.469 | 0.157 | 0.027 |
| Performance Appraisal | 0.008 | 0.913 | 0.137 | 0.096 |
| Promotion | 0.059 | 0.275 | 0.116 | 0.094 |
| Compensation & Social benefit | 0.829 | 0.000 | 0.319 | 0.000 |

In connection with a hypothesis, 1 regression analysis was conducted with ES as the dependent variable and five best HRM practice as the independent variable. It was hypothesized that best HRM practice effects positively with ES. As presented in Table 3, adjusted $R^2$ was found 0.611 (PK) & 0.534 (CN), demonstrated that in 61.1% (PK) & 53.4 % (CN) of the total variance of employee satisfaction is explained by best HRM practices.

It has also observed that only two variable compensation & social benefit and R &S are significant predictor's ES in the case for public and private organizations of Pakistan. Compensation & social benefits had the strongest effect on ES with a coefficient (B) of 0.829. Four variable compensation & social benefit, T & D, Promotion and PA are significant predictors for ES in the case for Chinese public and private organizations. Compensation and social benefits had the strongest effect on ES with a standardized beta of 0.319. The overall p-value of the model is <0.001, which shows that the best HRM practices have a highly significant positive effect on ES. Therefore, the overall result of regression analysis supports the hypothesis that best HRM practices are positively related to ES for both Countries i.e. Pakistan & China. Hence, based on the overall model and values the null hypothesis is rejected and the alternative hypothesis is supported by my data set.

**Hypothesis 2: Best HRM practices are positively related to better Employee Retention.**

The correlation coefficient in Table 4 shows that there are strong and positive relationships between ER and compensation & social benefits (r=0.764) and PA (r=0.517). There is a moderate and positive relationship between ER and promotion, T & D and R& S.Whereas in China, there are strong and positive relationships between ER and all five HRM practices i.e. R & S (r=0.734), performance appraisal(r=0.704), T&D (r=0.689), compensation & social benefits (r=0.688) and promotion(r=0.658). Correlation coefficients of all independent variables are significant at the significant level of 1%.



*ISSN 2076-9202*

Table 4 Result of Pearson correlation coefficients best HR practices and ER.

| | R.S | T & D | PA | Promotion | Comp |
|---|---|---|---|---|---|
| **Correlation Coefficient (r) in Pakistan** | 0.386** | 0.427** | 0.517** | 0.461** | 0.764** |
| **Correlation Coefficient (r) in China** | 0.734** | 0.689** | 0.704** | 0.658** | 0.688** |

** Significant at 1% level

A result of regression analysis in Table 5 indicates that 59.2 % (PK) & 62.3% (CN) variation in the dependent variable (ER) is explained by five best HRM practices. It was observed that only compensation & social benefits emerged as the predictor of ER in the case of public and private organization of Pakistan. Three variable R&S, compensation and social benefit & PA area significant predictors of employee retention in the case of public and private organization of China. Therefore, the overall p-value of the model is <0.001, which shows that HRM practices have a highly significant positive effect on ER. Therefore, the overall result of regression analysis supports the hypothesis that best HRM practices are positively related to employee retention for both Countries.

Table 5: Result of Regression analysis for Employee Retention.

| **ANALYSIS OF VARIANCE** | | | | |
|---|---|---|---|---|
| | **Pakistan** | | **China** | |
| Adjusted R- squared | 0.592 | | 0.623 | |
| | **F ( 51.441 ) p = .000** | | F (84.223 ) p = .000 | |
| | **Coefficients(B)** | **P-value** | **Coefficients(B)** | **P-value** |
| Recruitment & Selection | 0.054 | 0.296 | 0.3 | 0.000 |
| Training & Development | 0.016 | 0.702 | 0.053 | 0.25 |
| Performance Appraisal | 0.097 | 0.104 | 0.111 | 0.038 |
| Promotion | 0.019 | 0.653 | 0.05 | 0.274 |
| Compensation & Social benefit | 0.596 | 0.000 | 0.143 | 0.003 |

**Hypothesis 3: Best HRM practices are positively related to better Employee Commitment.**

A Correlation between dependent variable i.e. EC and five best HRM practices as an independent variable



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is illustrated in below Table 6. According to the below Table 6, in Pakistan Correlation coefficient of compensation & social benefits (r=0.510) has a strong and positive relationship with EC.PA & promotion has a moderate relationship while the other two variable T&D and R&S have a small but positive relationship with EC. Correlation coefficients of four independent variables are significant at a significant level of 1%. Whereas in China all five best HRM practices i.e. PA, compensation & social benefits), promotion, T&D and R&S have a strong and positive relationship with EC at p< .0001.

Table 6: Result of Pearson correlation coefficients best HR practices and EC.

| | **R.S** | **T & D** | **PA** | **Promotion** | **Comp** |
|---|---|---|---|---|---|
| **Correlation Coefficient (r) in Pakistan** | 0.137** | 0.249** | 0.349** | 0.301** | 0.510* |
| **Correlation Coefficient (r) in China** | 0.553** | 0.566** | 0.654** | 0.612** | 0.649* |

** Significant at 1% level

Results of regression analysis in Table 7 indicate that in Pakistan adjusted $R^2$ of 0.262 reveals that 26.2 % of the total variance of EC is explained by best HRM practices. Whereas in China five best HRM practices have significantly explained the 48.1% of the variance in EC.

It is observed that three dimensions of best HRM practices i.e compensation & social benefits, PA and R&S emerged as the significant predictors of EC in the case of Pakistan. Whereas in China, only two variable compensation and social benefit and PA are the significant predictors for EC. The overall p-value of the model is <0.001, which shows that the best HRM practices have a highly significant positive effect on employee commitment. Therefore, results of regression analysis support the hypothesis 3 that best HRM practices are positively related to higher EC in Pakistan & China. Hence, the null hypothesis is rejected and its alternative hypothesis supported by my data set.



*ISSN 2076-9202*

Table 7: Result of regression analysis for EC.

| **ANALYSIS OF VARIANCE** | | | | |
|---|---|---|---|---|
| | **Pakistan** | | **China** | |
| Adjusted R- squared | 0.262 | | 0.481 | |
| | F ( 13.345 ) p = .000 | | F ( 47.696 ) p = .000 | |
| | ***Coefficients(B)*** | ***P-value*** | ***Coefficients(B)*** | ***P-value*** |
| Recruitment & Selection | 0.181 | 0.093 | 0.092 | 0.331 |
| Training & Development | 0.012 | 0.892 | 0.028 | 0.738 |
| Performance Appraisal | 0.223 | 0.07 | 0.331 | 0.001 |
| Promotion | 0.036 | 0.681 | 0.12 | 0.143 |
| Compensation & Social benefit | 0.626 | 0.000 | 0.33 | 0.000 |

## 6. Comparison & Conclusion

The sample of this study was 428 (PK=175, China=253). Demographic Analysis shows that the 59% the respondent belongs from China, Majority of respondents were Male 63%, 52 % from Public sector organization and the majority of respondent have 5-10 year experience in both countries. In Pakistan, the majority of the respondent (71%) belongs to a large organization, whereas the majority of the respondent in China belongs to medium-sized organization.

In this comparative study first purpose was to study the relationship between best HRM practices and HR outcomes i.e. employee satisfaction, retention and employee commitment and to explore the impact of HRM practices on HR outcomes in Pakistan & China.

When we compare the result between for data collected Pakistan and China then a positive result was found that best HRM practices had a positive impact on ES. For Pakistan, two variable of Best HRM practices i.e. Compensation & Social benefit and Recruitment & whereas for China four variables i.e. Compensation & social benefit, Training & development, Promotion and Performance appraisal were the significant predictors of employee satisfaction.

Compensation and Social benefits are considered an important tool to attract, retain and motivate their employees. Pakistan is an under developing country, employees need the basic salary monetary reward and other benefits like health and life insurance for means of living. Compensation is one of the k employees should believe they are being paid enough for the work what they are doing. If the organization paid enough for their work and provide all benefits then it will not wrong to say that employee would be motivated and satisfied with their job and organization. Whereas China is the developing country so employees need for satisfaction is different from another country like Pakistan.



ISSN 2076-9202

Chinese employees no doubt have a desire for good compensation and social benefit but they also need training opportunities in order to enhance their knowledge, skills and abilities for performing their job better and grow. Employee satisfaction in China also based on Promotion and PA, indicated that they want to grow in the organization for this purpose they need a good performance appraisal system. The employee should be provided with good promotion opportunities according to their performance appraisal system.

Best HRM practices had a positive impact on ER in Pakistan and China. In Pakistan compensation & social benefit Whereas in China, three variable R& S, compensation & social benefit and PA were the predictors of ER.

In Pakistan employee can be retained in the organization if they provide them with a competitive salary, monetary reward, security, health insurance, retirement packages, bonuses, flexible working hours, leaves and many more. When Pakistani organizations offer these benefits then they have a much better chance of retaining employees. Whereas in China, R&S is the main source of retention; Chinese believes that if they were inducted through good recruitment system where their knowledge, skills, abilities, capabilities, personality etc would be analyzed according to the requirement of a specific job. This becomes the major source for retention because they would be fit for that job. Compensation and Social benefit is also the source of retention because every employee wanted to be paid well with other social benefits from the organization. PA is the also the main source of retention because when employees performance is checked & evaluated periodically and feedback would be given, further offer them good opportunities to grow and improve their performance by training then employees would not think to leave the organization.

In Pakistan, three variable of best HRM practices i.e. Compensation & social benefit, PA and R&S, whereas in China Compensation & social benefit and PA were the significant predictors of EC. In both countries Pakistan and China, employee commitment based on providing good policies of Compensation & Social benefit and Performance Appraisal. If an organization provide sufficient amount of compensation and benefit to their employees and in result, they will be committed with the organization. When employee performance is directly related to compensation, the greatest impact is on productivity and performance of the organization. In result, employees would be committed and identify the organization's goal and work hard to accomplish such goals. The organization should provide timely, accurate and useful performance appraisals and promote the most qualified employees. And develop employees by providing opportunities for growth then employees feel a sense of allegiance to his or her organization. In Pakistan, addition Recruitment and Selection policies are a source of commitment. Hence, it is concluded that best HRM practices have a positive impact on employee satisfaction, retention and commitment for Pakistan & China.

The results revealed that bundles of best HRM practices are positively related to better employee satisfaction in the public and private organization of Pakistan & China. This result is consistent with Jackson &Schuler, (1995); Eskildsen & Nussier, (2000); Boselie &Wieles, (2002) and Neelamani and Rathnawerera (2010). This means that the effective implementation of all five best HRM practices leads to better employee satisfaction. This study found that bundles of best HRM practices are positively related to better employee retention in both countries i.e. Pakistan & China. This result is consistent with



ISSN 2076-9202

Neelamani and Rathnawerera (2010). This demonstrated that effective utilization of all five best HRM practices in the organization leads to employee retention. This study found that best HRM practices are also positively related to better employee commitment  This result supports the previous research findings such as, lies, Mabey & Robertson, (1990); Graetner & Nollen, (1992); Meyer & Allen, (1997); Ulrich, (1997); Meyer & Smith, (2000);Guest, (2002); Edgar and Geare, (2005)  and Neelamani and Rathnawerera (2010).

There are some suggestions for future research and implication. In this study, only five best HRM practices are taken for research in future some other HR practices can also be considered for best HRM practices. This was the comparative study between Pakistan and China; this study can also be focused only in one country. Public and private both sector are considered for this study, for future study only one sector can be focused.

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**References**

[1] Appelbaum, E., Bailey, T., Berg, P. B., Kalleberg, A. L., & Bailey, T. A. (2000). Manufacturing advantage: Why high-performance work systems pay off. Cornell University Press.

[2] Appelbaum, E., & Batt, R. L. (1994). The new American workplace: Transforming work systems in the United States. Cornell University Press.

[3] Arthur, J. B. (1994). Effects of human resource systems on manufacturing performance and turnover. Academy of Management journal, 37(3), 670-687..

[4] Barney, J. (1991). Firm resources and sustained competitive advantage. Journal of management, 17(1), 99-120.

[5] Becker, B., & Gerhart, B. (1996). The impact of human resource management on organizational performance: Progress and prospects. Academy of management journal, 39(4), 779-801.

[6] Becker, B. E., Huselid, M. A., Pickus, P. S., & Spratt, M. F. (1997). HR as a source of shareholder value: Research and recommendations. Human Resource Management: Published in Cooperation with the School of Business Administration, The University of Michigan and in alliance with the Society of Human Resources Management, 36(1), 39-47.

[7] Bell, B. S., Lee, S. W., & Yeung, S. K. (2006). The impact of e-HR on professional competence in HRM: Implications for the development of HR professionals. Human Resource Management: Published in Cooperation with the School of Business Administration, The University of Michigan and in alliance with the Society of Human Resources Management, 45(3), 295-308.

[8] Boon, C., & Kalshoven, K. (2014). How high-commitment HRM relates to engagement and commitment: The moderating role of task proficiency. Human Resource Management, 53(3), 403-420.

[9] Boselie, P., & van der Wiele, T. (2002). Employee perceptions of HRM and TQM, and the effects on satisfaction and intention to leave. Managing Service Quality: An International Journal, 12(3), 165-172.



*ISSN 2076-9202*

[10] Bowen, D. E., & Ostroff, C. (2004). Understanding HRM–firm performance linkages: The role of the "strength" of the HRM system. Academy of management review, 29(2), 203-221..

[11] Collins, C. J., & Clark, K. D. (2003). Strategic human resource practices, top management team social networks, and firm performance: The role of human resource practices in creating organizational competitive advantage. Academy of management Journal, 46(6), 740-751.

[12] Collins, C. J., & Smith, K. G. (2006). Knowledge exchange and combination: The role of human resource practices in the performance of high-technology firms. Academy of management journal, 49(3), 544-560.

[13] Combs, J., Liu, Y., Hall, A., & Ketchen, D. (2006). How much do high-performance work practices matter? A meta-analysis of their effects on organizational performance. Personnel psychology, 59(3), 501-528.

[14] Dransfield, R. (2000). Human resource management (p. 69). Jordan Hill.

[15] Dyer, L., & Reeves, T. (1995). Human resource strategies and firm performance: what do we know and where do we need to go?. International Journal of human resource management, 6(3), 656-670.Edgar, F., & Geare, A. (2005). HRM practice and employee attitudes: Different measures different results. Personnel Review, 34(5), 534-549.

[16] Edgar, F., & Geare, A. (2005). HRM practice and employee attitudes: different measures–different results. Personnel review, 34(5), 534-549.

[17] Ehrnrooth, M., & Björkman, I. (2012). An integrative HRM process theorization: Beyond signalling effects and mutual gains. Journal of Management Studies, 49(6), 1109-1135.

[18] Farndale, E., & Sanders, K. (2017). Conceptualizing HRM system strength through a cross-cultural lens. The International Journal of Human Resource Management, 28(1), 132-148.

[19] Becker, G. S. (2009). Human capital: A theoretical and empirical analysis, with special reference to education. University of Chicago press.

[20] Guest, D. E. (1997). Human resource management and performance: a review and research agenda. International journal of human resource management, 8(3), 263-276.

[21] Gaertner, K. N., & Nollen, S. D. (1992). Turnover intentions and desire among executives. Human Relations, 45(5), 447-465.

[22] Guest, D. (2002). Human resource management, corporate performance and employee wellbeing: Building the worker into HRM. The journal of industrial relations, 44(3), 335-358.

[23] Huselid, M. A. (1995). The impact of human resource management practices on turnover, productivity, and corporate financial performance. Academy of management journal, 38(3), 635-672.

[24] Ichniowski, C., Shaw, K., & Prennushi, G. (1995). The effects of human resource management practices on productivity (No. w5333). National bureau of economic research.

[25] Iles, P., Mabey, C., & Robertson, I. (1990). HRM practices and employee commitment: Possibilities, pitfalls and paradoxes. British Journal of Management, 1(3), 147-157.

[26] Jiang, K., Lepak, D. P., Hu, J., & Baer, J. C. (2012). How does human resource management influence organizational outcomes? A meta-analytic investigation of mediating mechanisms. Academy of management Journal, 55(6), 1264-1294.

[27] Katou, A. A., Budhwar, P. S., & Patel, C. (2014). Content vs. process in the HRM-performance relationship: An empirical examination. Human Resource Management, 53(4), 527-544.



***ISSN 2076-9202***

[28] Lado, A. A., & Wilson, M. C. (1994). Human resource systems and sustained competitive advantage: A competency-based perspective. Academy of management review, 19(4), 699-727.

[29] Malhotra, K. M. Briks. FD 2003. Marketing Research, AN Applied Approach (second edition), England, Pearson Education Ltd.

[30] Koch, M. J., & McGrath, R. G. (1996). Improving labor productivity: Human resource management policies do matter. Strategic management journal, 17(5), 335-354.

[31] Martinsons, M. G. (1995). Knowledge-based systems leverage human resource management expertise. International journal of manpower, 16(2), 17-34.

[32] Meyer, J. P., & Allen, N. J. (1987). A longitudinal analysis of the early development and consequences of organizational commitment. Canadian Journal of Behavioural Science/Revue canadienne des sciences du comportement, 19(2), 199.

[33] Meyer, J. P., & Smith, C. A. (2000). HRM practices and organizational commitment: Test of a mediation model. Canadian Journal of Administrative Sciences/Revue canadienne des sciences de l'administration, 17(4), 319-331.

[34] Rathnaweera, R. R. N. T. (2010). Do HRM practices impact employee satisfaction, commitmentor retention?:(empirical studies of Sri Lankan public sector banks) (Master's thesis, Universitetet i Agder; University of Agder).

[35] Nunnally, J. C. (1978). Psychometric Theory: 2d Ed. McGraw-Hill.

[36] O'Neill, O. A., Feldman, D. C., Vandenberg, R. J., DeJoy, D. M., & Wilson, M. G. (2011). Organizational achievement values, high-involvement work practices, and business unit performance. Human Resource Management, 50(4), 541-558.

[37] Pfeffer, J., & Jeffrey, P. (1998). The human equation: Building profits by putting people first. Harvard Business Press.

[38] Pfeffer, J. (1994). Competitive advantage through people. California management review, 36(2), 9.

[39] Park, H. J., Mitsuhashi, H., Fey, C. F., & Björkman, I. (2003). The effect of human resource management practices on Japanese MNC subsidiary performance: a partial mediating model. The International Journal of Human Resource Management, 14(8), 1391-1406.

[40] Salanova, A., & Kirmanen, S. (2010). Employee satisfaction and work motivation. Bachelor thesis). Mikkeli University, Mikkeli, Finland.

[41] Sanders, K., Shipton, H., & Gomes, J. F. (2014). Guest editors' introduction: Is the HRM process important? Past, current, and future challenges. Human Resource Management, 53(4), 489-503.

[42] Saridakis, G., Lai, Y., & Cooper, C. L. (2017). Exploring the relationship between HRM and firm performance: A meta-analysis of longitudinal studies. Human Resource Management Review, 27(1), 87-96.

[43] Schuler, R. S., & Jackson, S. E. (1987). Linking competitive strategies with human resource management practices. Academy of Management Perspectives, 1(3), 207-219.

[44] Schuler, R. S., & MacMillan, I. C. (1984). Gaining competitive advantage through human resource management practices. Human resource management, 23(3), 241-255.

[45] Sumelius, J., Björkman, I., Ehrnrooth, M., Mäkelä, K., & Smale, A. (2014). What determines employee perceptions of HRM process features? The case of performance appraisal in MNC subsidiaries. Human Resource Management, 53(4), 569-592.

[46] Takeuchi, R., Lepak, D. P., Wang, H., & Takeuchi, K. (2007). An empirical examination of the mechanisms mediating between high-performance work systems and the performance of Japanese organizations. Journal of Applied Psychology, 92(4), 1069.



*ISSN 2076-9202*

[47] Ulrich, D. (1997). Measuring human resources: an overview of practice and a prescription for results. Human Resource Management: Published in Cooperation with the School of Business Administration, The University of Michigan and in alliance with the Society of Human Resources Management, 36(3), 303-320.

[48] Wall, T. D., & Wood, S. J. (2005). The romance of human resource management and business performance, and the case for big science. Human relations, 58(4), 429-462.

[49] Wood, S. (1996). High commitment management and payment systems. Journal of Management Studies, 33(1), 53-77.

[50] Wright, P. M., & Snell, S. A. (1991). Toward an integrative view of strategic human resource management. Human resource management review, 1(3), 203-225.

[51] Wright, P. M., McMahan, G. C., & McWilliams, A. (1994). Human resources and sustained competitive advantage: a resource-based perspective. International journal of human resource management, 5(2), 301-326.



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# DEVELOPING TRIP GENERATION RATES FOR RESTAURANTS IN AMMAN

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**Abstract**

Predicting the magnitude and pattern of vehicle movements for different trip purposes is essential for urban planning in order to avoid traffic congestion and ensure the reduction of travel times on the network. This study addresses one aspect of trip making that is restaurant trips in Amman and aims to develop trip generation rates based on observing travel behaviour at various restaurants through statistical analysis.

The main goal of this study is to determine the number of vehicles trips generated, attracted to and/or produced by restaurants in Amman, the capital of Jordan, by analysing the effect of several explanatory variables on the number of generated trips. The explanatory variables include: parking capacity, gross floor area, number of employees, and number of seats available. The restaurants are divided into five main categories, namely: traditional, tourist, international, fast food, and mixed (restaurants and cafés).

Two questionnaires were conducted. The first to determine the peak periods and days for data collection; while the second was for collecting data about restaurants in Amman (type, size, number of employees, and parking capacity). The data collection included manual counts of the number of vehicles at each restaurant over the specific peak periods for each restaurant category dictated by the first questionnaire. Analysis of the second questionnaire showed that the generated trips to restaurants in Amman are mainly related to two variables; parking capacity and number of employees. Finally, the rates developed in this research are compared to available rates in the trip generation manual of the Institute of Transportation Engineers (ITE) and other regional manuals; to provide transport planners and decision makers with a reliable tool to predict future growth and help guide their decisions.

**Keywords:** trip generation; transportation planning; trip generation manual; restaurant trips; trip purpose.

## 1. Introduction

The Urban Transportation Modelling System (UTMS) or known as the 4-step model. This is consists of four major steps; trip generation, trip distribution, mode choice and traffic assignment. Trip



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generation is defined as the total number of trips generated by household in the zone, either home-based or non-home-based. (Ortuzar & Willusmen, 2001). Home – based trips are where the home of the trip maker is either the origin or the destination of the journey (Ortuzar & Willusmen, 2001). A non-home-based (NHB) trip conversely is one where neither end of the trip is the home of the traveller (Ortuzar & Willusmen, 2001).

This study aims to build mathematical models for the trip generation rates of restaurants in Amman, and to develop relationships between trip productions and attractions for each restaurant type. These developed models could be used in the future to estimate the number of trips generated or produced by similar restaurants under a new set of land use conditions. This research also compares the values developed with the available rates in the trip generation manual of the ITE and other regional manuals; to provide transport planners and decision makers with a reliable tool to predict future growth and help guide their decisions.

Amman has a population of 4,327,800 inhabitants (DOS, 2018). This continued growth adds to the traffic load on the road network leading to further congestions and delays in Amman. This study is focused on restaurants trips in Amman, since this sector has also witnessed substantial growth. As of 2019, the total number of restaurants in Amman is 5112 classified as shown in Table 1. For example, the tourist restaurants increased from 576 restaurants at 2011 up to 804 restaurants in 2019 (GAM, 2019).

**Table 1: Types of Restaurants in Amman**

| Type of Restaurant | Total Number in 2019 |
|---|---|
| Tourist | 804 |
| Traditional | 3520 |
| International | 507 |
| Fast food | 122 |
| Mixed (Restaurant/Café) | 159 |

## 2. Literature Review

The literature includes several international studies on restaurants, but none were for Jordan. Previous international and local studies on trip generation are explored in this section. To start with, Oliveira et al. (2017) presented a freight trip generation model for food and beverage in Belo Horizonte, Brazil. The methodology adopted in this study was a questionnaire to obtain freight flow data; then build and calibrate the model using the collected data; and finally geographically analyse the results to understand the sector's impact on urban traffic. The survey was conducted in 300 establishments and used Geographic Information System (GIS) tools to compute a continuous surface by interpolating the discrete values of travel per day delivered from the trip generation model. A structured questionnaire was designed to obtain data on goods, frequency, operational time, and location of loading/unloading of goods. The independent variables were: area of the establishment; number of employees; and operation day of the establishment.



ISSN 2076-9202

Datta et al. (1998) developed a trip-generating database of multiuse commercial developments in Michigan, USA. The models could be used for investigating future trip generation for future multiuse developments which include gasoline stations with convenience stores and fast food restaurants. These developments were found to be particularly desirable to customers with two or more travel needs.

Al-Zahrani and Hasan (2008) studied fast food restaurants in Jeddah, Saudi Arabia. A sample size of twenty fast food restaurants was selected for this study. The studied restaurants were grouped into two categories: hamburger chain restaurants, and chicken chain restaurant. As for the data collected in this study, it was grouped into two categories: office data and field data. Office data was collected from managers about the area and the number of employees at the facility. The field data included the number of parking stalls available at the facility, the availability of drive-through windows, and traffic volume data.

A study was conducted about restaurants in Malaysia by Abdulameer et al. (2014). Ten fast food restaurants, belonging to three international chains with drive-through windows, were studied in detail. Trip rates were related to the number of parking spaces, gross floor area, and number of seats in the restaurants. Field surveys were conducted, noting the arriving and departing vehicles using Automatic Traffic Counters (ATCs) and were verified through video data and short-term manual counts. The following three parameters were considered: gross floor area, number of parking spaces available, and number of seats in the restaurant. The developed linear regression and multiple regression models showed that the gross floor area and the available number of parking spaces were significant parameters in determining the number of trip generations and, the number of seats in Malaysia was not related to the number of trips due to climatic conditions.

Quintero et al. (2016) developed trip generation rates by mode for 3 school types (private schools, semi-private and public schools) in Merida-Venezuela. Their analysis focused on trip generation as a function of the social and economic attributes of households. Using stepwise regression and transformation of data, they found highly correlated models.

Salasa and Rood (2017) studied trip generation and parking demand of mosques in the greater Cape Town area of the Western Cape. The mosques surveys were conducted and relationships between the number of vehicles generated and parked at the mosques with the characteristics of the mosques and their surrounding areas were determined. The results contribute to the understanding of the traffic characteristics of mosques, but should not be readily applied to other metropolitan areas without taking into consideration local travel demand and mode choice characteristics.

Al-Masaeid and Fayyad (2018) developed trip generation rates for residential areas in Irbid, Jordan. Household surveys were carried out to collect data on trips. A sample of about 2500 households was interviewed, and regression analysis and cross-classification approach were both used to model the trip generation rates. Family size, car ownership and income levels were used in their approach. During workdays, the analysis indicated that the number of home-based work trips constituted about one-third of the total home-based trips.

Al-Masaeid et al. (2018) estimated trip and parking generation of shopping centres in Jordan. The study investigated 28 shopping centres located in three major cities during peak periods. The trips



ISSN 2076-9202

generated and parking demand were found to be strongly related to the gross floor area, number of employees, availability of cinemas, and sufficient parking supply in shopping centres.

## 3. Research Methodology

This study is focused on developing trip generation rates for restaurants in Amman. The sample size of the study was taken as 177 restaurant distributed in the 5 categories as described in Table 2. Data was collected three times for each restaurant to cover all meals: breakfast, lunch, and dinner.

**Table 2:** Distribution of the Study Sample

| Category | Population | Confidence Level | Confidence Interval | Sample Size Needed | Sample Size Used |
|---|---|---|---|---|---|
| Traditional | 1000 | 95% | 20 | 24 | 45 |
| Fast food | 500 | 95% | 20 | 23 | 57 |
| Tourist | 1000 | 95% | 20 | 23 | 30 |
| International | 40 | 95% | 20 | 15 | 15 |
| Mixed (Restaurant /Café) | 800 | 95% | 20 | 23 | 30 |

The methodology followed in this study relied mainly on two questionnaires. The first questionnaire consists of two sections: the first section measures the number and percentage of visitors per day, and the second section measures the number and percentage of visitors per meal. The second questionnaire consists of two parts as well. The first part collects data about the restaurants (category, rank or rating, number of employees, location, parking availability, number of seats, drive-through availability, valet service availability, and floor area in squared meter), while the second part collects data on rush hours, vehicle types, restaurant infrastructure, number of customers, and the street network. The other type of data is the traffic volume for vehicles entering and exiting the restaurants which were recorded manually at each entry and exit point of restaurants for three days during weekends. The counts were carried out during summer months when the generated restaurants trip rates are expected to be at maximum levels to reflect the most critical traffic movement since it is season of school holidays, pleasant weather, and presence of tourists and visiting Jordanian expatriates in the kingdom. The methodology plan followed in this study is summarized in Figure 1.



ISSN 2076-9202

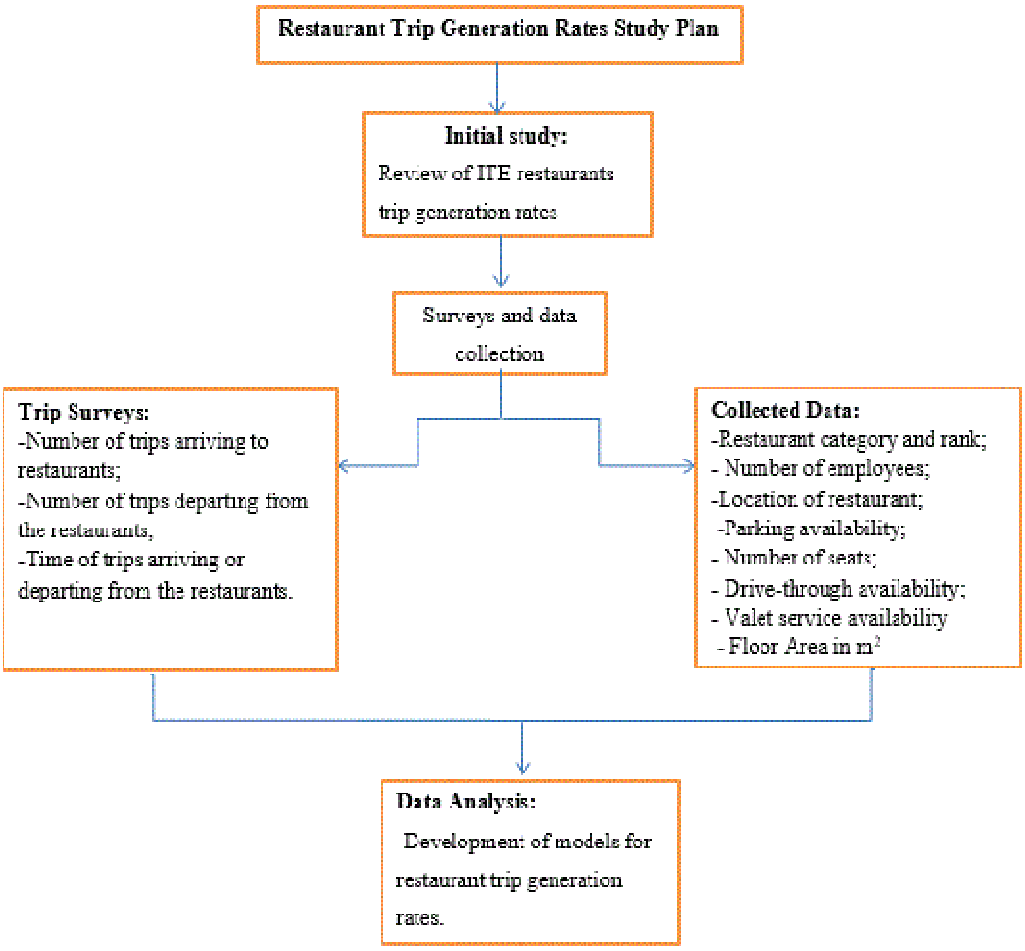


**Figure 1:** Study Plan Methodology

## 4. Analysis of Results

Linear Regression was used to produce restaurants trip generation models that best predict the number of trips generated to restaurants based on parking capacity, gross floor area ($m^2$), number of seats, and number of employees. The most commonly used method for developing trip generation rates is regression, relates a response to a set of predictor independent variables in order to develop a prediction equation (model) with the least possible error of prediction. The statistics were used at a confidence level of 95% to evaluate the statistical significance of the coefficients associated with the different variables used in developing the equations. Analysis of the first questionnaire indicates the peak day and time period per meal as shown in Table 3, except for fast food. Survey results for the fast food restaurants category show that the meals distributions over days and hours of the week are slightly different for lunch over Fridays, but the survey data for breakfast and dinner for the fast-food category matches other categories.



ISSN 2076-9202

**Table 3:** Survey Day of Week and Time per Meal

| Meal | Day of Week | Time |
|---|---|---|
| **Breakfast** | Friday | 8:30-10:30 am |
| **Lunch** | Saturday | 1:30-3:30 pm |
| **Dinner** | Thursday | 9:00-11:00 pm |

The results of the second questionnaire provide the arithmetic means and standard deviations of the respondents' answers and present the respondents' level of agreement with the listed factors affecting restaurant trip generating in the questionnaire as shown in Table 4. In order to compare the arithmetic mean of the responses according to the scale of the questionnaire the five-point Likert scale was adopted. The arithmetic mean default is equivalent to the value of (3) for the interpretation of the answers, and the responses of the respondents of the study sample were assessed as follows:

- Arithmetic mean is 5-3.67 means: high level of agreement.
- Arithmetic mean is 3.66-2.67 means: medium level of agreement.
- Arithmetic mean is less than 2.66 means: low level of agreement.

**Table 4:** Arithmetic Mean, Standard Deviation, and Agreement Level of Study Dimensions

| No. | Dimension | Average Mean | Average St. Deviation | Level |
|---|---|---|---|---|
| **1** | Seasonal, weekly, and temporal variations | 3.76 | 0.94 | High |
| **2** | Access mode: private transport, public transport, or walking | 3.77 | 0.95 | High |
| **3** | Parking availability and capacity | 3.88 | 0.96 | High |
| **4** | Valet service and location of restaurant | 3.89 | 0.94 | High |
| **5** | Street network and conditions around the restaurant | 3.64 | 0.95 | Medium |

By testing the study's major hypothesis that there is no effect of the five study dimensions (listed in Table 4) on the generated trips to restaurants in Amman. If the null major hypothesis is rejected, then the alternative hypothesis is accepted: meaning that there is an effect of the study dimensions on the generated restaurants trips in Amman. To start with, models using a single variable to predict the number of trips generated are needed. In order to ensure the accuracy of the trends, the standard deviation of the average number of trips was calculated and presented in Table 5.



*ISSN 2076-9202*

**Table 5:** Standard Deviation of Average Trips

| Type of restaurant | Thursday (9:00-11:00 pm) | Saturday (1:30-3:30 pm) | Friday (8:30-10:30 am) |
|---|---|---|---|
| International | 20.66 | 15.33 | N/A |
| Tourist | 31.825 | 15.58 | N/A |
| Traditional | 40.54 | 24.411 | 67.75 |
| Fast Food | 57.55 | 29.31 | N/A |
| Mixed | 24.66 | 13.23 | 7.81 |

Tables 6 -10 summarize the results of the single variable models for restaurants trips in Amman during the peak periods for all restaurants categories. Table 11 provides a summary of the chosen models for each restaurant category.

**Table 6:** International Restaurants Prediction Models

| Variable | Dinner Model (9:00-11:00 pm) | Adjusted $R^2$ for Dinner (9:00-11:00 pm) | Lunch Model (1:30-3:30 pm) | Adjusted $R^2$ for Lunch (1:30-3:30 pm) |
|---|---|---|---|---|
| Parking capacity | $y = .9583x-29.483$ | $R^2= 0.7744$ | $y = 0.675x -16.55$ | $R^2 = 0.6978$ |
| Gross floor area ($m^2$) | $y = -.026\ x +27.861$ | $R^2= 0.1456$ | $y =-0.041x + 42.216$ | $R^2 = 0.2028$ |
| Number of seats | $y= -0.197x+63.194$ | $R^2= 0.0872$ | $y =0.52x + 31.67$ | $R^2 = 0.3126$ |
| Number of employees | $y =-0.301\ x +45.67$ | $R^2= 0.0139$ | $y =-0.130x+47.627$ | $R^2 = 0.0692$ |

**Table 7:** Tourist Restaurants Prediction Models

| Variable | Dinner Model (9-11 pm) | Adjusted $R^2$ for Dinner (9-11 pm) | Lunch Model (1:30-3:30 pm) | Adjusted $R^2$ for Lunch (1:30-3:30 pm) |
|---|---|---|---|---|
| Parking capacity | $y = .04191x-7.303$ | $R^2= 0.7728$ | $y = 0.2043\ x -8.129$ | $R^2 = 0.7662$ |
| Gross floor area ($m^2$) | $y = -0.0232\ x +72.273$ | $R^2= 0.0213$ | $y =-.0194\ x +48.651$ | $R^2 = 0.0619$ |
| Number of seats | $y= 0.1057x+28.2$ | $R^2= 0.1389$ | $y =.0589\ x +22.696$ | $R^2 = 0.0802$ |
| Number of employees | $y =0.5018\ x +22.142$ | $R^2= 0.6805$ | $y =0.\ 2048\ x+26.071$ | $R^2 = 0.4728$ |



ISSN 2076-9202

**Table 8:** Fast Food Restaurants Prediction Models

| Variable | Dinner Model (9-11 pm) | Adjusted $R^2$ for Dinner (9-11 pm) | Lunch Model (1:30-3:30 pm) | Adjusted $R^2$ for Lunch (1:30-3:30 pm) |
|---|---|---|---|---|
| Parking capacity | $y$ =0.5197 $x$ +48.523 | $R^2$ = .3743 | $y$ =0.179 $x$ +53.776 | $R^2$ =0.2017 |
| Gross floor area ($m^2$) | $y$ =0.76 $x$ +75.87 | $R^2$ = 0.0712 | $y$ =0.0487$x$ +54.778 | $R^2$ = 0.1329 |
| Number of seats | $y$=0.9022$x$-23.562 | $R^2$ = 0.5838 | $y$ =0.451 $x$ +9.0821 | $R^2$ = 0.6625 |
| Number of employees | $y$ =0.5924 $x$ +118.93 | $R^2$= .0434 | $y$ =0.2329 $x$ +78.744 | $R^2$ = 0.0304 |

**Table 9:** Traditional Restaurants Prediction Models

| Variable | Dinner Model (9-11 pm) | Adjusted $R^2$ | Lunch Model (1:30-3:30 pm) | Adjusted $R^2$ | Breakfast Model ( 8:30-10:30 am) | Adjusted $R^2$ |
|---|---|---|---|---|---|---|
| **Parking capacity** | $y$ =0.2454$x$ +71.231 | $R^2$=0.128 | $y$=0.632$x$+56.423 | $R^2$=0.111 | $y$ =0.889$x$+44.423 | $R^2$=.0285 |
| **Gross floor area ($m^2$)** | $y$ =-0.028$x$+78.053 | $R^2$=.027 | $y$=0.030$x$+52.372 | $R^2$=0.0396 | $y$ =0.0176$x$+63.99 | $R^2$=.0007 |
| **Number of seats** | $y$ =-0.044$x$+66.783 | $R^2$=.0239 | $y$=0.096$x$+47.128 | $R^2$=.0146 | $y$ =0.4265$x$+16.55 | $R^2$=.1388 |
| **Number of employees** | $y$=-0.425$x$+54.31 | $R^2$=0.023 | $y$=0.4152$x$+38.81 | $R^2$=0.7153 | $y$ =.0968$x$+72.365 | $R^2$=.0019 |

**Table 10:** Mixed Restaurants Prediction Models

| Variable | Dinner Model (9-11 pm) | Adjusted $R^2$ | Model for Lunch (1:30-3:30 pm) | Adjusted $R^2$ | Model for Breakfast ( 8:30-10:30 am) | Adjusted $R^2$ |
|---|---|---|---|---|---|---|
| **Parking capacity** | $y$=0.2532 $x$ +14.6 | $R^2$=0.4811 | $y$=0.0598$x$+23.86 | $R^2$=0.0933 | $y$=0.0404$x$+2.509 | $R^2$=0.122 |
| **Gross floor area ($m^2$)** | $y$=0.041$x$ +22.831 | $R^2$=0.4349 | $y$=0.0299$x$+14.14 | $R^2$=0.8027 | $y$=0.0176$x$+2.550 | $R^2$=0.797 |
| **Number of seats** | $y$=0.1603$x$+12.159 | $R^2$=0.3635 | $y$=0.1026$x$+9.452 | $R^2$=0.5154 | $y$=0.0715$x$-7.6971 | $R^2$=.7186 |
| **Number of employees** | $y$=-0.688$x$+76.618 | $R^2$=0.095 | $y$=0.522$x$+54.282 | $R^2$=0.1903 | $y$=-0.0101$x$+8.041 | $R^2$=.0002 |



ISSN 2076-9202

**Table 11:** Summary of Models

| Type of restaurant | Best Model for Each Meal<br>Dinner Breakfast | Lunch | |
|---|---|---|---|
| **International** | Parking capacity<br>$y$ = .9583$x$-29.483 | Parking capacity<br>$y$ = 0.675 $x$ -16.55 | Not Available |
| **Tourist** | Number of employees<br>$y$ =0.5018 $x$ +22.142 | Number of employees<br>$y$ =0.2048 $x$+26.071 | |
| **Fast Food** | Number of seats<br>$y$= 0.9022$x$-23.56 | Number of seats<br>$y$= 0.9022$x$-23.562 | |
| **Traditional** | Parking capacity<br>$y$ =0.2454 $x$ +71.23 | Parking capacity<br>$y$ =0.6315$x$ +56.423 | Parking capacity<br>$y$ =0.8885$x$ +44.423 |
| **Mixed** | Parking capacity<br>$y$ =0.2532 $x$ +14.6 | Gross Floor Area<br>$y$=0.1026$x$+9.452 | Gross Floor Area<br>$y$ =0.0716 $x$ +2.550 |

The last step is to compare between the generated rates and other regional and international manuals, as presented in Table 12.

**Table 12:** Comparison between Amman, Regional and International restaurant trip generation rates

| Land Use Category | Amman Trip Rates | | | ITE Manual | | | Abu Dhabi Manual | | | Dubai Manual | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AM | Noon | PM | AM | Noon | PM | AM | Noon | PM | AM | Noon | PM |
| Restaurants | 0.889 | 0.675 | 0.958 | 9.94 | 7.49 | 14.13 | 0.03 | 0.35 | 0.45 | 0.29 | 6.93 | 8.12 |
| Variable | Parking capacity | Parking capacity | Parking capacity | 1000 $ft^2$ of GFA | 1000 $ft^2$ of GFA | 1000 $ft^2$ of GFA | Number of seats | Number of seats | Number of seats | 100 $m^2$ of GFA | 100 $m^2$ of GFA | 100 $m^2$ of GFA |
| Fast Food | - | 0.902 | 0.902 | 183.07 | - | 38.9 | - | 12.71 | 19.53 | 0 | 13.06 | 12.65 |
| Variable | Not available | Parking capacity | Parking capacity | 1000 $ft^2$ of GFA | Not available | 1000 $ft^2$ of GFA | Not available | 100 $m^2$ of GFA | 100 $m^2$ of GFA | 100 $m^2$ of GFA | 100 $m^2$ of GFA | 100 $m^2$ of GFA |

## 5. Conclusions

Trip generation is the first step of the traditional four-step transportation planning process. It explains the demand behaviour of traveling from a location to another, such as producing or attracting trips by purpose. These step helps decision makers estimate generate zonal trips and parking demand in order to guide future plans and developments.

In Amman, the capital of Jordan, the restaurants sector has grown rapidly over the past decade. Restaurants in the city are major trip generators affecting the operating conditions of the transportation system in their vicinity. This research studied 177 restaurants covering all licensed restaurants categories, namely: international, traditional, tourist, fast food, and mixed. The first questionnaire was used to determine the peak demand periods per meal for each restaurant type (peak times and days). Friday morning (8:30-10:30 am) was found to be the peak day for breakfast, Saturday afternoon (1:30-3:30 pm) for lunch, and Thursday evening (9-11 pm) for dinner.

The second questionnaire was used to collect data about the restaurants in Amman (type, size, number of employees, and parking capacity). The traffic data collection involved manual counts of the number of vehicles at each restaurant over the specific peak periods for each restaurant category dictated by the first questionnaire.



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To build the trip generation models, four independent variables were investigated: parking capacity, gross floor area, number of seats, and number of employees. The analysis of the single variable regression models showed that all four independent variables were significant factors affecting the number of generated restaurant vehicle trips in Amman. The obtained trip generation rates were compared to the available USA rates in the ITE trip general manual, as well as other regional manuals. It was found that the local trip generation rates were generally different, either higher or lower, and not comparable to any of the other three manuals. This dissimilarity could be explained by the fact that travel behaviour as well as the socio-economic conditions and land use characteristics are different. The results of this research provide a basic step towards developing a trip generation manual for Jordan.

## References

Abu Dhabi Road and Transit Authority (2012). *Trip Generation and Parking Rates Manual*. Abu Dhabi, United Arab Emirates.

Ahmed, I., Abdulameer, A., Puan, O. C., and Minhans, A. (2014). Trip Generation at Fast–Food Restaurants in Johor Bahru, Malaysia. *Jurnal Teknologi*, 70(4), pp. 91-95.

Al-Masaeid, H. R., Shehab, A., & Khedaywi, T. S. (2018). Trip and Parking Generation for Shopping Centers in Jordan. *ITE Journal*, 88(2), pp. 45-49.

Al-Masaeid, H. R. and Fayyad, S. S. (2018). Estimation of Trip Generation Rates for Residential Areas in Jordan. *Jordan Journal of Civil Engineering*, 12(1), pp.162-172.

Al-Sahili, K., Eisheh, S. A., & Kobari, F. (2018). Estimation of New Development Trip Impacts through Trip Generation Rates for Major Land Uses in Palestine. *Jordan Journal of Civil Engineering*, 12(4), pp. 669-682.

Al-Zahrani, A. H. and Hasan, T. (2008). Trip generation at fast food restaurants in Saudi Arabia. Institute of Transportation Engineers. *ITE Journal*, 78(2), pp. 24-29.

Bera Sh., K. R. (2011). Estimation of Origin-Destination Matrix from Traffic Counts: The State of the Art . *European Transport*, (49) , pp. 3-23.

Bochner, B. H. (2011). NCHRP REPORT 684: *Enhancing Internal Trip Capture Estimation for Mixed-Use Developments*. Transportation Research Board, Washington, D.C.

Clifton, K. J., Currans, K. M., and Muhs, C. D. (2015). Adjusting ITE's Trip Generation Handbook for Urban Context. *Journal of Transport and Land Use*, 8(1), pp. 5-29.
Daisa, J. M. (2013). NCHRP 08-66: *Trip-Generation Rates for Transportation Impact Analyses of Infill Developments*. Transportation Research Board, Washington D.C.

Datta, T. K., Datta, S., and Nannapaneni, P. (1998). Trip-Generation Models for Multi-use Highway Commercial Developments.. *ITE Journal*, 68(2), pp. 24-31.

Dubai Road and Transit Authority (1998). *Trip Generation and Parking Rates Manual*. Dubai, United Arab Emirates.

Durand, B., and Gonzalez-Feliu, J. (2012). Urban Logistics and e-grocery: have proximity delivery services a positive impact on shopping trips? *Procedia-Social and Behavioral Sciences*, 39, pp.510-520

Ewing, R., Cervero, R. (2010). Travel and the Built Environment, A Meta Analysis. *Journal of the American Planning Association*, 76(3), pp. 265-294.

Garber, N., and Hoel, L. (2009). *Traffic and Highways Engineering-SI Version*. Nelson Engineering (2nd Revised International Student Edition).

Greater Amman Municipality (2019). Retrieved from http://www.ammancity.gov.jo.



*ISSN 2076-9202*

Hard, E., Bhat, C., Chigoy, B., Green, L., Dubey, S., Pearson, D., and Moore, P. C. (2015). *Improved Trip Generation Data for Texas Using Work Place and Special Generator Survey Data* (No. FHWA/TX-15/0-6760-1).

Harris, L. B. (2010). Mixing Interview and Questionnaire Methods: Practical Problems in Aligning Data. *Practical Assessment, Research & Evaluation*, 15(1), pp. 1-19.

Institute of Transportation Engineers. (2003). *Trip Generation*. 7th Edition, Washington, DC, USA.

Jordan Statistical Year Book, (2018). Retrieved from www.dos.gov.jo.

Karel, M. (2006). Basing Transport Planning on Principles of Social Justice. *Berkeley Planning Journal*, 19(1), pp. 1-17.

Majbah Uddin, M., Hasan, M.R., Istiak, A., Priyanka Das, M.A., and Hasan, T. (2012). A Comprehensive Study on Trip Attraction Rates of Shopping Centers in Dhanmondi Area. *International Journal of Civil and Environmental Engineering*, 12 (4), pp. 12-16.

Oliveira, L. K. D., Nóbrega, R. A. D. A., and Ebias, D. G. (2017). Analysis of Freight Trip Generation Model for Food and Beverage in Belo Horizonte (Brazil). *The Journal of ERSA*, 4(1), pp. 17-30.

Pitsiava-Latinopoulou, M., Tsohos, G., and Basbas, S. (2001). Trip Generation Rates and Land Use-Transport Planning in Urban Environment. *WIT Transactions on the Built Environment*, 52, pp.297-306.

Quintero Petit, A., Díaz Gallardo, M., and Moreno González, E. (2016). Trip Generation by Transportation Mode of Private School, Semi-Private and Public. Case Study in Merida-Venezuela. *Transportation Research Procedia*,18, pp.73-79.

Schneider, R. J., Shafizadeh, K., and Handy, S. L. (2015). Method to adjust Institute of Transportation Engineers Vehicle Trip-Generation Estimates in Smart-Growth Areas. *Journal of Transport and Land Use*, 8(1), 69-83.

Salasa, A., and Roodt, L. D. V. (2017). *Trip generation and Parking Demand of Suburban Mosques in the Greater Cape Town*, Western Cape. In the proceedings of the Southern African Transport Conference, ISBN Number: 978-1-920017-73-6, pp. 754-765.



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# PLANNER OR PLAYER? QUANTIFYING CONSUMERS' MENTAL BUDGETING CONTROL ABILITY

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## Abstract

This paper discusses mental budgeting control construct in the consumer behavior setting and conceptualizes consumers' mental budgeting ability (BCA), a factor that can classify consumers into types of Planners and Players. This factor is expected to divide consumers into distinct group in terms of their spending pattern. Results show that the BCA player consumers are more responsive to store promotions and immediate price changes. But BCA planner consumers enjoy using their ability to carefully plan spending for better utilities. Information and customer relationship management can benefit from the findings of this research. BCA planner customers are more responsive to structures and configurations such as loyalty programs and points and levels systems. BCA players are more attracted by informational, symbolic utility, or immediate and direct savings.

**Keywords**: Consumer Analytics, Mental budgeting, Consumer Decisions, Consumer Behavior

## Introduction

Seminal papers of mental accounting/budgeting theory include Thaler (1985; 1999) and Heath and Soll (1996). The theory explains the behavior that consumers mentally set budget and track spending against budget goals. Mental budgeting includes 3 major activities, labeling, tracking and evaluation. Consumers label spendable funds into such categories as grocery budgets, education budgets, track spending against budget goals (Heath and Soll 1996), and evaluate budget control outcome (Thaler 1999). Literature focus on understanding the labeling, tracking and evaluation activity (Cheema and Soman 2006) (Stilley et al 2010a;2010b) (Langer and Weber 2001). However, consumers' personal factor in relation to the mental budgeting activities and purchase behaviors has limited coverage (Krishnamurthy and Prokopec 2009) (Bénabou and Tirole 2004). This paper conceptualizes consumers mental budgeting



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control ability (**BCA**), validate this factor using consumers' shopping history data, and demonstrate its impact and application in understanding consumers' decision-making.

Consumers control spending against budget. But the level of control distinguishes the indulgent (Kivetz and Simonson 2002) from the inexorable (Cheema and Soman 2006). Some consumers are very flexible in spending while others are used to strictly control spending to meet budget goals. Consumers are different in the efforts put in budgeting control. In most general level, consumers can be divided into strict and flexible budgeting control type, i.e., the *planners* and *players*. The BCA planners make detailed schedule of shopping, carefully plan for spending, and strictly follow the spending plan. The BCA players are less planned for spending and are more subject to compulsive buying. Compared with BCA planners, BCA players are more attracted by (more responsive to) temporary store promotions.

Impulsive buying literature also support the existence of BCA factor. Impulsive buying research focus on understanding unplanned purchase behavior. The literature examines external and internal factors such as social norms (Rook and Fisher 1995) and self-regulation (Vohs and Faber 2007) ( Krishnamurthy and Prokopec 2009). To a large extent, impulsive buying literature confirm that there are consumers who put more efforts in mental budgeting, i.e., the planners. In relation to consumers' behavior, the impulsive buying and mental budgeting can be consolidated toward forming a general personal trait, the BCA factor. The BCA factor guides how much mind power a consumer usually uses in matching the spending and budget. Apparently, level of mental budgeting control should negatively relate to frequency of impulsive buying. Consumers of low mental budgeting control can appear strong in impulsive buying intension because the 2 factors both reflect less concern for overspending. Many other factors are relevant such as the durable vs. non-durable goods. This study focuses on grocery shopping and leave the durable goods factor to future studies.

Existing literature has suggested a moderator effect of mental budgeting on price (Thaler 1999; Homburg et al. 2010). However, there lacks empirical studies. Homburg et al. (2010) study the effects of income and mental budgeting factor in a lab environment. This paper uses the real-world consumer's purchase data and formalize the BCA factor.

This paper quantifies consumers' BCA by calculating the variance of the consumer's spending history. Its impacts on consumers' purchases behaviors are tested using a logistic regression model. Results show that the consumers' BCA has a significant moderating effect on price and promotion. The BCA player consumers are more responsive to store promotions, immediate price changes, and any stimuli for emotional resonance. But BCA planner consumers enjoy using their ability to carefully plan spending for better utilities. Thus, marketing campaigns with more structures and configurations such as loyalty programs and points and levels systems will work well for them. BCA player consumers in contrast will be more attracted by informational, symbolic utility, or immediate and direct savings.



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The remainder of this paper is organized as following. We first develop the BCA concept from related literatures. Next, we conduct experiments with consumers' purchase data and validate the existence and impact of this factor. Last, we discuss the importance and applications of this technique.

## Literature and Measurement

Thaler (1985) is the seminal paper on mental accounting research. Consumers mentally track their spending and compare that with the goal of budget control. Heath and Soll (1996) articulate that consumers may label expendable money into categories such as entertainment fund or household expense. They also track expenditures in shopping against the money labels. Thaler (1999) generalizes the mental accounting activities as labeling activities, evaluation of budget control outcomes, and frequency of evaluations. In the evaluation activity, consumers can be different in terms of intensity of the evaluation effort. This paper conceptualizes this factor as the *mental budgeting control ability* (**BCA**). This factor generally put consumers into 2 groups, **planners and players**. BCA planners are used to put more efforts in mental budgeting control and carefully plan for spending. While BCA players are the opposite. Planners follow their spending plans strictly and try to avoid overspending by all means; while players are easily get attracted by promotions, care about symbolic and informational values, and more often make compulsive buying.

Existing literature provide clues for the existence of the BCA factor. Cheema and Soman (2006) find that some consumers will re-label an expense from one to another spending category in order to justify over-spending. These consumers are very possibly the BCA player consumers who usually do not carefully plan for spending and not hardly control for budgets. They may often need to look for justifications of budgeting control outcomes. Stilley et al. (2010a) find that consumers are not always consistent in setting budget on categories, and they set flexible funds which can be spent on various categories in grocery shopping. The findings of Cheema and Soman (2006) and Stilley et al. (2010a) can be generalized and attributed to the BCA factor.

Impulsive buying literature also supports the BCA factor. Impulsive buying literature addresses unplanned purchase behavior. This behavior can be attributed to internal factors such as shopper's emotion (Weinberg and Gottwald 1982) and psychological mechanism (Strack and Deutsch 2006), and external factors such as social norms (Rook and Fisher 1995) and culture (Kacen and Lee 2002). Vohs and Faber (2007) find that some consumers are self-regulatory while other are not. This paper argues that consumers have a personality trait, the BCA factor, that sets a base tone for consumer's responsiveness to stimuli of impulsive buying. This BCA factor partially explains the heterogeneous behaviors that mental budgeting and impulsive buying literature have been targeting.

BCA is a personal trait representing an established habit for the level of effort put in mental budgeting control. Because a personal trait can be captured by one's personal history of behaviors (Danner et al. 2011), the BCA factor is measured using consumers' shopping history data. The *BCA Score*



ISSN 2076-9202

is calculated as the standard deviation of a consumer's spending on a related set of product categories over a specific time period.

The set of categories should come from the same spending label such as grocery spending, appliance spending or entertainment spending. As mental budgeting theory suggests, consumers label funds and expenditure into categories (Heath and Soll 1996). It is very possibly that consumers' spending is relatively consistent at the category level. The choice of time period should be long enough to ensure a general trait being extracted; but at the same time not too long to be confused by habit changing. This study uses grocery spending category and one year (year 2009) of shopping history data to calculate the BCA score. Figure 2 shows the histogram of the extracted score variable.

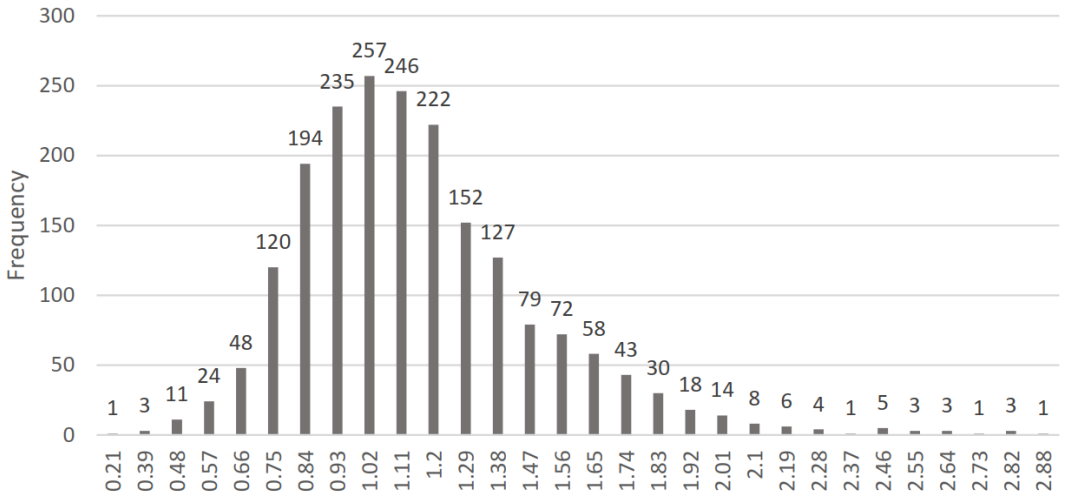


**Figure 1. Mental Budgeting Control Ability (BCA) Score Histogram**

The beginning and ending ticker of the histogram is the minimum BCA score 0.21 and maximum 2.88. Scores smaller than 0.48 or larger than 2.01 are rare. Note that the BCA score is measuring the variance of historical spending amount. Thus, high BCA score indicates the BCA players and low BCA score indicates BCA planners.

## Method

### *Model*

The BCA factor is tested in a traditional price and purchase model. It is widely accepted that price is negatively related to purchase, and promotions is positively related to purchase. If the BCA factor is valid, it should moderate the price and promotion effect (Thaler 1999) (Homburg et al. 2010). As discussed before, the *players*, compared with the *planners*, are expected more responsive to price change and promotions. Here is a general price model.



*ISSN 2076-9202*

$$Probability\ (purchase) = \boldsymbol{\beta} * price + \boldsymbol{\varepsilon}$$

The price effect $\boldsymbol{\beta}$, is negative, indicating that lower price leads to more purchase. The BCA factor moderates the price effect in a way that the price effect is stronger on BCA players than on BCA planners. Here is a BCA price model.

$$Probability\ (purchase) = \boldsymbol{\beta_1} * price + \boldsymbol{\beta_2} * BCA + \boldsymbol{\beta_3} * price * BCA + \boldsymbol{\varepsilon}$$

Parameter $\boldsymbol{\beta_2}$ and $\boldsymbol{\beta_3}$ capture the moderating effect. $\boldsymbol{\beta_2}$ is the BCA constant term. $\boldsymbol{\beta_3}$ captures the moderating effect of BCA on the base price effect. By examining the significance and direction of $\boldsymbol{\beta_3}$, the existence and impact of the BCA factor is verified (refer to (Baron and Kenny 1986) for moderating effect).

Promotion model has the form same to the price model. Family size, household income, and total trips are included in the model as control variables.

**Data and Variables**

A dataset is extracted from the Nielsen Consumer Panel and Scanner database. Data for the year 2010 in 11 cities are extracted for this project. Information of availability and access to the dataset is available at http://research.chicagobooth.edu/nielsen.

Detergent purchase is used as the dependent variable. Because every household needs Detergent, using this category can reduce the risk of picking a special group of households. The dataset is extracted and prepared using the approach of Yang and Sudharshan (2019). Table 1 shows the variables and explanations and Table 2 are the correlation scores between the variables.

**Table 1. Variables Used in the Model**

| Name | Explanation | Measure |
|---|---|---|
| **Purch** | **The purchase of Detergent** | **1-purchased, 0-not purchased** |
| **FS** | **Household family size** | **1 - 9** |
| **TT** | **household total trips made** | **33 - 1376** |
| **Incom** | **Household income** | **Ordinal, 3 to 27 for increasing income levels** |
| **Price** | **Standardized product price** | **0.01 to 2.94** |
| **Promo** | **Product promotions** | **level of promotions in the week, 0 to 1** |

**Table 2. Variable Correlations**

| | BCA | FS | TT | Incom | Price | Promo | Purch |
|---|---|---|---|---|---|---|---|



ISSN 2076-9202

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **BCA** | 1 | | | | | | |
| **FS** | -0.02 | 1 | | | | | |
| **TT** | 0.44 | 0.05 | 1 | | | | |
| **Incom** | -0.04 | 0.26 | 0.02 | 1 | | | |
| **Price** | -0.02 | 0 | 0.01 | 0.06 | 1 | | |
| **Promo** | 0.02 | 0.02 | 0 | 0.04 | -0.06 | 1 | |
| **Purch** | -0.03 | 0.03 | -0.02 | 0.01 | -0.16 | 0.15 | 1 |

There is a mild correlation between total trips (TT) and the focal variable BCA. Experiments are conducted to replace TT with BCA in model estimation. Results show that BCA provides much more explanation power in the price and promotion model (see Results section). The BCA variable is significantly a standalone variable and cannot be replaced by the TT variable.

**Model Estimation**

Because the dependent variable is binomial as "purchased" or "not purchased", Logit model is a natural fit. The *glm* function in R (R core team 2014) is used to estimate the model. However, the complete separation problem (Firth 1993) occurs, in which one or a combination of predictors can perfectly predict a dichotomous dependent variable. This occurs mainly because the maximum likelihood estimator is unbiased on rare event (King and Zeng 2001). Firth method (Firth 1993) is a revised version of maximum likelihood estimator and considering the bias on rare events. This method is suggested as replacement of the traditional maximum likelihood estimator in logit model (Heinze and Schemper 2002). This paper adopts the *brglm* package developed by Kosmidis (2019).

**Results**

Table 3 shows the results of model fit and parameter estimations.

**Table 3. Model Fit and Parameter Estimations**

| Model | TT | FS | Incom | Price | Promo | BCA | BCA*Price | BCA*Promo | AIC |
|---|---|---|---|---|---|---|---|---|---|
| 1 | -0.0005 *** | 0.039 ** | 0.011 ** | -24.200 *** | 2.850 *** | | | | 18753 |
| 2 | -0.0002 | 0.036 ** | 0.010 * | -8.880 *** | 1.410 * | 1.200 *** | -14.300 *** | 1.380 * | 18730 |
| 3 | | 0.037 ** | 0.011 ** | -24.173 *** | 2.846 *** | | | | 18765 |
| 4 | | 0.035 * | 0.010 * | -8.923 *** | 1.405 * | 1.144 *** | -14.224 *** | 1.393 * | 18731 |



ISSN 2076-9202

Note: * p < 0.05, ** p < 0.01, *** p < 0.001

Mode 2, by including the BCA moderation terms, achieves a better data-model fit indicated by a lower AIC score. It indicates that incorporating consumers' BCA factor can significantly improve the explanation power of the model. More importantly, the BCA moderating effect is significant on price and promotion. Indicated by the sign of the effects, price and promotion effects are enhanced by consumers' BCA score. This result meets the hypothesis that players (high BCA score) consumers, compared with planner (low BCA score) consumers, are more responsive to price change and promotion events. The results show strong evidence that consumers' BCA factor is valid and has significant influence in predicting consumers' behavior.

Model 3 and 4 is the experiment of dropping the total trips (TT) variable from the model. Comparing model 3 and 4 provides a very similar result. Thus, the TT variable has very little impact on the effectiveness of the BCA factor. Comparing model 3 with 1, the model fit score is improved by including the TT variable. But when the BCA factor presents, the model fit score is almost not improved at all by including the TT variable (model 4 to 2). This result supports that the BCA factor is a standalone variable that explains purchase behavior independently for whether on frequent or non-frequent buyers.

To show an application of the BCA factor. This paper classifies consumers in the dataset into BCA *Planners* and *Players* by their BCA score. As shown in Figure 1, the BCA scores are centered around 1. The BCA scores smaller than 1 are classified as "planners" and others are "players". Then this categorical variable is tested again in the price/promotion model. Results are shown below in Table 4.

**Table 4. BCA Player Model**

| TT | FS | Incom | Price | Promo | Player | Player*Price | Player*Promo | AIC |
|---|---|---|---|---|---|---|---|---|
| -0.0003 | 0.038 | 0.010 | -18.890 | 2.459 | 0.946 | -10.260 | 0.786 | 18728 |
| * | ** | ** | *** | *** | *** | *** | * | |

The Player/Planner dummy variable and its moderating effects are all significant. For a unit of price drop of Detergent, the BCA *Players* can be (18.89 + 10.26)/18.89 = 1.54 times more responsive than the BCA *Planners* on average. The AIC score is at the level same to the original BCA model.

**Discussion**

This paper conceptualizes consumers mental budget control ability (BCA) factor and provides a technique to quantify this personal factor. It adds to the mental budgeting and compulsive buying literature by quantifying the intensity of the consumer's mental budgeting activities in the grocery shopping setting. It shows that this variable can significantly separate consumers into *Planner* and *Player* types. By including this factor and capturing consumers' heterogeneity in mental budgeting, a commonly



ISSN 2076-9202

used price/promotion model shows significant improvements of data-model fit, which can lead to improved prediction of demand and improved understanding of customer decision making.

Understanding how customers respond to marketing promotions is critical to business success. Especially in the era of competing on customer services. The BCA factor proposed in this paper is a simple but important concept to marketers. It has wide range of applications such as in recommender systems, e-marketing, catalog marketing and forecast models.

To use this finding for quick insights, managers can simply classify customers into planner, regular and player BCA. Because BCA planners enjoy using their ability to carefully plan their spending for better utilities, the marketing campaigns with more structures and configurations such as loyalty programs and points and levels systems will work well with them. BCA players in contrast are more attracted by informational, symbolic utility, or immediate savings. Immediate savings are attractive to all customers, but the planners tend to be less responsive and stay with their spending schedules which usually require more planning and configurations. Managers can utilize the BCA factor in existing techniques such as personalized marketing campaigns. Recommender systems, for example, are very important tools in online stores. A recommender system helps customers to find products they really want among the overwhelming numbers of offers in an online store. The BCA factor can be added to a recommender system and help filter products/services that will have a better chance of being liked by customers.

## Reference

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. Journal of personality and social psychology, 51(6), 1173.

Bénabou, R., & Tirole, J. (2004). Willpower and personal rules. *Journal of Political Economy*, 112(4), 848-886.

Cheema, A., & Soman, D. (2006). Malleable mental accounting: The effect of flexibility on the justification of attractive spending and consumption decisions. *Journal of Consumer Psychology*, 16(1), 33-44.

Danner, U. N., Aarts, H., Papies, E. K., & de Vries, N. K. (2011). Paving the path for habit change: Cognitive shielding of intentions against habit intrusion. *British journal of health psychology,* 16(1), 189-200.

Firth, D. (1993). Bias reduction of maximum likelihood estimates. *Biometrika* 80, 27–38.

Heath, C., & Soll, J. B. (1996). Mental budgeting and consumer decisions. *Journal of Consumer Research*, 23(1), 40-52.

Heinze, G., & Schemper, M. (2002). A solution to the problem of separation in logistic regression. *Statistics in medicine*, 21(16), 2409-2419.

Homburg, C., Koschate, N., & Totzek, D. (2010). How price increases affect future purchases: The role of mental budgeting, income, and framing. *Psychology & Marketing*, 27(1), 36-53.



***ISSN 2076-9202***

Kacen, J. J., & Lee, J. A. (2002). The influence of culture on consumer impulsive buying behavior. *Journal of Consumer Psychology*, 12(2), 163-176.

King, G., & Zeng, L. (2001). Logistic regression in rare events data. *Political analysis*, *9*(2), 137-163.

Kivetz, R., & Simonson, I. (2002). Self-control for the righteous: Toward a theory of precommitment to indulgence. *Journal of Consumer Research*, 29(2), 199-217.

Kosmidis I (2019). *brglm: Bias Reduction in Binary-Response Generalized Linear Models*. R package version 0.6.2, https://cran.r-project.org/package=brglm.

Krishnamurthy, P., & Prokopec, S. (2009). Resisting that triple-chocolate cake: Mental budgets and self-control. *Journal of Consumer Research*, 37(1), 68-79.

Langer, T., & Weber, M. (2001). Prospect theory, mental accounting, and differences in aggregated and segregated evaluation of lottery portfolios. *Management Science*, 47(5), 716-733.

R Core Team (2014). R: A language and environment for statistical computing. *R Foundation for Statistical Computing,* Vienna, Austria.

Rook, D. W., & Fisher, R. J. (1995). Normative influences on impulsive buying behavior. *Journal of consumer research*, 22(3), 305-313.

Stilley, K. M., Inman, J. J., & Wakefield, K. L. (2010a). Planning to make unplanned purchases? The role of in-store slack in budget deviation. *Journal of consumer research*, 37(2), 264-278.

Stilley, K. M., Inman, J. J., & Wakefield, K. L. (2010b). Spending on the fly: mental budgets, promotions, and spending behavior. *Journal of Marketing*, 74(3), 34-47.

Strack, F., & Deutsch, R. (2006). Reflective and impulsive determinants of consumer behavior. *Journal of Consumer Psychology*, 16(3), 205-216.

Thaler, R. (1985). Mental accounting and consumer choice. *Marketing Science*, *4*(3), 199-214.

Thaler, R. H. (1999). Mental accounting matters. *Journal of Behavioral Decision Making*, *12*(3), 183.

Vohs, K. D., & Faber, R. J. (2007). Spent resources: Self-regulatory resource availability affects impulse buying. *Journal of Consumer Research,* 33(4), 537-547.

Weinberg, P., & Gottwald, W. (1982). Impulsive consumer buying as a result of emotions. *Journal of Business Research*, 10(1), 43-57.

Yang, Z., & Sudharshan, D. (2019). Examining multi-category cross purchases models with increasing dataset scale–An artificial neural network approach. *Expert Systems with Applications*, 120, 310-318.



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# DEVELOPMENT OF LOGISTIC REGRESSION MODEL TO PREDICT DEFAULT PROBABILITIES OF LOAN ACCOUNTS

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**Abstract**

Loans always play a key role in economics worldwide, and individuals rely on them to gain the economic power to exercise their intentions. One of the most difficult tasks for investors is to correctly determine which accounts have the ability to pay back their loans. Whether it is banks lending to individuals, or peer to peer lending, investors always have to take into consideration the accounts' creditworthiness. In this report, more than two million accounts' portfolios, each consisting of around 140 variables provided by Lending Club, has been analyzed. The approach is a variable univariate analysis, followed by a logistic regression model development to predict the probability of an account being charged off or defaulting on his or her debt obligation. Program R is used to carry out the computations. The validation of the final model indicated that the model is reliable and successful at predicting Charge Off/Default.

## 1. RESEARCH PLAN

Unlike traditional financial institutions, peer-to-peer lending allows individuals to receive or offer loans without a middleman. The business model was first introduced in 2005 when British peer-to-peer lending company Zopa was founded ("The FeelGood"). Peer-to-peer lending websites link borrowers with investors directly and have greatly increased the adoption of the business model (Kagan). There are many advantages to peer-to-peer lending; for example, the cost of building physical exchange centers is completely eliminated as the entire procedure operates online. This reduction in cost allows accounts to obtain loans at lower interest rates compared to rates at banks. Lending Club, an American peer-to-peer company founded in 2006, is the largest platform of its kind in the world (P.). The company issued a total of 50 billion US dollars as of June 2019, offering more than 4 million loans in the second quarter ("LendingClub Statistics"). The company is undoubtedly one of the most prominent and impactful peer-to-peer platforms in the world. Individuals from around the world rely on the service of the company to obtain financial power to purchase property, pay for healthcare, start up personal businesses, and a range of other actions.

One of the most important tasks for peer-to-peer lending companies is to ensure that accounts pay back their loans. When deciding whether an applicant for a loan is likely to pay back their loan, lending companies examine a series of the applicant's current conditions. Some important variables include their income,



*ISSN 2076-9202*

employment title, purpose for the loan, and proposed loan amount, etc. The objective of this study is to develop a predictive model that would determine the probability of an account being Charged Off or Defaulted using information provided during the application process. The dependent variable is derived from the "Loan Status," defined as bad for "Charge Off" or "Default" or good for "Current" or "Grace Period". The independent variables include bureau variables, application variables, like their annual incomes, employment titles, purpose for the loan, proposed loan amount, etc.

The data used in this study, provided by Lending Club, consists of 2,260,668 observations with 145 variables for each observation. Accounts originated from 2016 to 2018 that have a value of 0 or 1 for the dependent variable will be considered for developing the Logistic Regression Model, as a Point in Time Model would be more relevant to current conditions. Due to the large data size, those accounts are randomly split into three groups: 5% as a training dataset, 10% of a holdout dataset, and 85% as another holdout dataset. With the numerical variables split into these three groups, a logistic regression model is run on each with the training data in order to find the most significant predictors out of the groups. The most significant predictors, measured by a p value of <0.001, will be included in the final model. A logistic regression model will run on all of the categorical variables at once with the training data to determine which ones are the most significant predictors. Finally, the most significant categorical predictors, measured by a p value of <0.001, will also be included in the final model. The categorical variables are then checked and revised to better fit the model. The predictive model will be validated using all three datasets, and performance of the model will be judged based on measurements of the AUC under the ROC curve and the KS statistic. The model will then be analyzed and interpreted based on the results of the logistic regression development.

## 2. RESEARCH APPROACH

### 2.1 Data

The data used in this study is provided by Lending Club. The data consists of all the borrower account data from the beginning of the company in 2007 up until the end of 2018. There are a total of 2,260,668 observations, and 145 variables for each observation including user ID, loan status, loan amount, funded amount, employment length, employment title, issue date, etc.

The variable "loan status" is used to determine the binary dependent variable of whether a borrower is a "bad" or "good" borrower. It includes nine categories that describe the state of the account's loan: Charged Off, Current, Default, Does not Meet the Credit Policy with Status as Charged Off, Does not Meet the Credit Policy with Status as Fully Paid, Fully Paid, In Grace Period, Late (16-30 days), and Late (31-120 days). Among these nine categories, Charged Off and Default represent a "bad" account, indicating that they did not pay back their loan. Current, Fully Paid, and In Grace Period represent a "good" account, indicating that they did pay back. The other categories are not represented in the final binary variable, these



ISSN 2076-9202

categories are converted so that a new binary variable named "Bad" becomes the dependent variable. A value of 1 represents that the account did not pay back their loan, and a value of 0 represents one that was paid or is in the process of paying. These values are the dependent variable that the logistic regression model will be predicting.

There were 1,373,228 Accounts originated from 2016 to 2018. The Loan Statuses for these accounts are tabulated below.

Table 1. Summary of Loan Status

| Loan Status | Number of accounts |
|---|---|
| Charge Off | 109,988 |
| Current | 861,000 |
| Default | 31 |
| Fully Paid | 370,793 |
| In Grace Period | 8,034 |
| Late (16-30 days) | 3,421 |
| Late (31-120 days) | 19,961 |
| Does Not Meet The Credit Policy. Status:Charged Off | 0 |
| Does Not Meet The Credit Policy. Status: Fully Paid | 0 |

Table 2. Defining Dependent Variable "Bad"

| Variable | Corresponding value for the dependent variable "Bad" |
|---|---|
| Charged Off | 1 |
| Default | 1 |
| Current | 0 |
| Fully Paid | 0 |
| In Grace Period | 0 |
| Late (16-30 days) | -1 |



ISSN 2076-9202

| | |
|---|---|
| Late (31-120 days) | -1 |

Only accounts that have a value of 0 or 1 for the dependent variable are kept to develop the model, leaving a total of 1,349,846 accounts used. Due to the large data size, those accounts are randomly split into three groups: 5% as a training dataset, 10% as a holdout dataset, and 85% as another holdout dataset.

Table 3. Data for the three split groups of Good/Bad accounts

| Purpose | Data Usage | Percentage | Sample Size | # of Good Accounts | # of Bad Accounts |
|---|---|---|---|---|---|
| Model Training | Build Initial Model | 5% | 67,368 | 61,950 | 5,418 |
| Predictor Message/Business Meaning Testify | Holdout10 | 10% | 135,260 | 124,100 | 11,160 |
| Independent Validation | Holdout85 | 85% | 1,147,218 | 1,053,777 | 93,441 |

**2.2 Basic Statistics of Independent variables**

The independent variables include bureau variables, application variables (like their annual incomes, employment titles, purpose for the loan, proposed loan amount, etc.) Here, I listed the basic statistics for the 14 independent variables eventually used in the final model. For the statistics of other variables, please see the attachment in appendix A and appendix B. Appendix A contains the basic statistics for all numerical variables. Appendix B contains the basic statistics for all categorical variables that have less than 10 categories to keep the paper concise.

Table 4. Basic statistics for 14 independent variables used in the final model

| Variable | Definition | Variable Type | Statistics |
|---|---|---|---|



ISSN 2076-9202

| | | | |
|---|---|---|---|
| Funded_amnt_inv | The total amount committed by investors for that loan at that point in time | Continuous Numerical, measured in USD | Nmiss 0<br>Mean 15,023<br>Std 9,192<br>Min 0<br>Q1 8,000<br>Median 12,800<br>Q3 20,000<br>Max 40,000 |
| int_rate | Interest rate on the loan | Continuous Numerical, measured in % | Nmiss 0<br>Mean 13.09<br>Std 4.83<br>Min 5.31<br>Q1 9.49<br>Median 12.62<br>Q3 15.99<br>Max 30.99 |
| loan_amnt | The listed amount of the loan applied for by the borrower. If at some point in time, the credit department reduces the loan amount, then it will be reflected in this value | Continuous Numerical, measured in USD | Nmiss 0<br>Mean 15,047<br>Std 9,190<br>Min 500<br>Q1 8,000<br>Median 12,900<br>Q3 20,000<br>Max 40,000 |



ISSN 2076-9202

| | | | |
|---|---|---|---|
| acc_open_past_24mths | Number of trades opened in past 24 months | Discrete Numerical | Nmiss 50,030<br>Mean 4.52<br>Std NA<br>Min 0<br>Q1 2<br>Median 4<br>Q3 6<br>Max 64 |
| il_util | Ratio of total current balance to high credit/credit limit on all install acct | Continuous Numerical | Nmiss 1,068,850<br>Mean 69.1<br>Std NA<br>Min 0<br>Q1 55<br>Median 72<br>Q3 86<br>Max 1,000 |
| pub_rec | Number of derogatory public records | Discrete Numerical | Nmiss 29<br>Mean 0.1975<br>Std NA<br>Min 0<br>Q1 0<br>Median 0<br>Q3 0<br>Max 86 |



ISSN 2076-9202

| | | | |
|---|---|---|---|
| inq_last_6mths | The number of inquiries in past 6 months (excluding auto and mortgage inquiries) | Discrete Numerical | Nmiss 30<br>Mean 0.5768<br>Std NA<br>Min 0<br>Q1 0<br>Median 0<br>Q3 1<br>Max 33 |
| tot_hi_cred_lim | Total high credit/credit limit | Continuous Numerical | Nmiss 70,276<br>Mean 178,243<br>Std NA<br>Min 0<br>Q1 50,731<br>Median 114,298<br>Q3 257,755<br>Max 9,999,999 |
| total_bc_limit | Total bankcard high credit/credit limit | Continuous Numerical | Nmiss 50,030<br>Mean 23,194<br>Std NA<br>Min 0<br>Q1 8,300<br>Median 16,300<br>Q3 30,300<br>Max 1,569,000 |
| verification_statusSource Verified | The income of the borrower is verified by Lending Club | Categorical | Values Counts<br>True 886,231<br>False 1,374,437 |



ISSN 2076-9202

| | | | |
|---|---|---|---|
| verification_statusVerified | The income of the borrower is verified, but not by Lending Club | Categorical | Values Counts<br>True 629,631<br>False 1,631,037 |
| Disbursement_Direct Pay_ID | The disbursement method is by direct pay | Categorical | Values Counts<br>True 78122<br>False 2,182,546 |
| Joint_App_ID | The application is a joint application with two co-borrowers | Categorical | Values Counts<br>True 120,710<br>False 2,139,958 |
| small_business_ID | The purpose of the loan is to start a small business | Categorical | Values Counts<br>True 24,689<br>False 2,235,979 |

### 2.3 Logistic Regression Model

In this study, the logistic regression model is generated with R version 3.6.1. The cutoff P value for including a variable in the final model is <0.001. This P value allows the final model to consist of only the most significant independent variables.

The formula for a logistic regression model is expressed as:

$$\log_b\left(\frac{p}{1-p}\right) = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \cdots + \beta_n x_n$$

In this formula, $p$ represents the probability of an account being "bad." The logit function is performed on $p$ so that the y-axis can have values of $(-\infty, +\infty)$. $\beta_0$ is the y-intercept, and $\beta_1$ to $\beta_n$ represent the regression coefficients for variables $x_1$ to $x_n$. In this study, the 14 independent variables in the final model includes the funded amount committed by investors, interest rate, loan amount applied, number of trades opened in the past 24 months, number of satisfactory accounts, and number of derogatory public records, etc.

### 2.4 Model Validation



ISSN 2076-9202

The developed model is used to predict the training dataset and holdout datasets, and the AUC of the ROC curve and Kolmogorov-Smirnov (KS) statistics are calculated to judge the model's performance. The area under the ROC curve and KS statistics for the holdout datasets are also compared to those of the training dataset to evaluate whether the model is stable.

## 3. Results

### 3.1 Data Cleanup

Logistic regression cannot handle missing values, therefore, it is important to clean up and handle missing observations in the datasets. If the number of missing observations for a variable is less than 50% of the total dataset, the technique of "charging" is used. For numerical variables, the values of missing observations are set to the mean of the variable in the available observations or 0, depending on whether the variable is continuous or discrete. If the variable is continuous, annual income for example, then the value for annual income in observations missing this variable is set to the mean of all the available annual income values. For this example, the mean of all the available values of the variable annual income is $77992.43 so the missing values are set to $77992.43. If the variable is discrete, the number of derogatory public records (pub_rec) for example, then the value of NA means that the account has no derogatory public records, which is why the value of NA is set to 0. A similar process is used to clean up the categorical variables. If the number of missing observations for a variable is less than 50% of the total dataset, the technique of "charging" is used. Missing values of variables are set to categories such as "n/a" or "other", depending on the meaning of the variable, to ensure the accuracy of the data.

Table 5. Rules of filling in missing values of independent variables.

| Variable Type | Value to fill missing values |
|---|---|
| Continuous numerical | Mean |
| Discrete numerical | 0 |
| Categorical | "n/a" or "other" |

If the number of missing data for a variable is greater than 50% of the total dataset (2,260,668), then the variable is directly excluded from further analysis. The reason for doing so is because the variable will no longer be a useful predictor as the majority of its data points are missing.

### 3.2 Development of Logistic Regression Model

The significance level for using a variable in the final model is <0.001. The dependent variable that the



ISSN 2076-9202

model is predicting is the binary variable of "bad" for an account. The independent variables include funded amount committed by investors, interest rate, loan amount applied, number of trades opened in the past 24 months, number of satisfactory accounts, and number of derogatory public records, etc.

Independent variables are compared to each other to determine which ones are the most significant predictors of the dependent variable. Due to memory and speed constraints of running the model on a personal computer, the numerical independent variables are split into three groups of around 20 variables, and a logistic regression model for each group is performed to determine which variables are the most statistically significant within the group. The categorical variables were compared together after excluding "emp_title", "zip_code", and "earliest_cr_line" as they are too costly for either speed or memory to run on a personal computer. In addition, variables that are too similar are organized so that only one remains in the model in order to avoid overfitting. The most significant variables within all the different groups were processed to be included in the final model. Variables that are used only by Lending Club such as "grade" (a grade Lending Club assigns to their users), are not considered in the model to make it more adaptive and less restrictive.

Table 6. Summary of the final logistic regression model.

| Variable | Estimate | Standard Error | Z Value | Pr(>\|z\|) |
|---|---|---|---|---|
| (Intercept) | -4.218E+00 | 7.135E-02 | -59.119 | < 2e-16 *** |
| verification_statusSource Verified | 2.991E-01 | 3.818E-02 | 7.834 | 4.74e-15 *** |
| verification_statusVerified | 5.150E-01 | 4.062E-02 | 12.678 | < 2e-16 *** |
| Disbursement_DirectPay_ID | -1.527E+00 | 1.374E-01 | -11.114 | < 2e-16 *** |
| funded_amnt_inv | -2.218E-03 | 3.910E-04 | -5.673 | 1.40e-08 *** |
| int_rate | 8.151E-02 | 2.772E-03 | 29.408 | < 2e-16 *** |
| loan_amnt | 2.233E-03 | 3.909E-04 | 5.711 | 1.12e-08 *** |
| acc_open_past_24mths | 4.890E-02 | 4.448E-03 | 10.994 | < 2e-16 *** |
| il_util | 2.990E-03 | 7.075E-04 | 4.225 | 2.38e-05 *** |
| pub_rec | 1.146E-01 | 2.172E-02 | 5.277 | 1.31e-07 *** |
| inq_last_6mths | 1.386E-01 | 1.682E-02 | 8.237 | < 2e-16 *** |
| tot_hi_cred_lim | -1.078E-06 | 1.079E-07 | -9.985 | < 2e-16 *** |
| total_bc_limit | -8.468E-06 | 9.274E-07 | -9.131 | < 2e-16 *** |



ISSN 2076-9202

| | | | | |
|---|---|---|---|---|
| Joint_App_ID | -6.807E-01 | 6.468E-02 | -10.524 | < 2e-16 *** |
| small_business_ID | 3.954E-01 | 1.140E-01 | 3.468 | 0.000524 *** |
| Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 | | | | |

The "Estimate" column indicates the predictive power of a variable. Estimate values are just $\beta_0$ to $\beta_n$ in the logistic regression formula.

$$\log_b\left(\frac{p}{1-p}\right) = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \cdots + \beta_n x_n$$

In this study, a greater estimate value for a variable means that accounts that do not pay back their loan most likely have a greater value of that variable. For example, the "int_rate" variable has a positive estimate value, indicating that a greater value of "int_rate" correlates with "bad" accounts. "Int_rate" stands for interest rate, and it makes business sense that an account is less likely to pay back their loan when there is a higher interest rate. On the other hand, a lesser estimate value does the opposite. For example, the "total_bc_limit" variable has a negative estimate value, indicating that a greater value of "total_bc_limit" correlates with "good" accounts. "Total_bc_limit" stands for the total bank card credit limit of the account, and it makes business sense that an account that has a high credit limit for their bank card is more likely to be a "good" account. To sum up, the estimate values are just the coefficients of the independent variables in the logistic regression formula. Since $p$ in this study is the probability of an account not paying their loan, greater coefficients increase $p$ and smaller coefficients decrease $p$ when all else is kept the same.

The "Standard Error" column indicates the standard of error for each coefficient estimate value. Lesser standard of error means higher confidence in the accuracy of the estimate value.

The "Z value" column indicates the Z statistics. Z statistics indicate the number of standard deviations away from the mean.

The "Pr(>|z|)" column indicates the p-value that corresponds to the Z statistics. A lesser p-value means that the variable is statistically significant at predicting the dependent variable.
The variables in the final logistic regression all have a significance level of less than 0.001. The numerical variables within these variables are all selected after achieving a significance level of <0.001 in their smaller groups. The categorical variables are compared to each other and limited so that only specific categories that have a significance level of <0.001 are included in the final model.

Figure 2. Program for creating the logistic regression model with R



ISSN 2076-9202

```
Call:
glm(formula = bad ~ verification_status + Disbursement_DirectPay_ID +
    funded_amnt_inv + int_rate + loan_amnt + acc_open_past_24mths +
    il_util + pub_rec + inq_last_6mths + tot_hi_cred_lim + total_bc_limit +
    Joint_App_ID + small_business_ID, family = binomial(link = "logit"),
    data = train)
```

### 3.3 Model Validation

An ROC curve is graphed for each validation dataset, the AUC value of the ROC curve is calculated, and the Kolmogorov–Smirnov (KS) statistic is calculated. An ROC curve is one of the most effective ways of evaluating a classification model's performance. The x-axis represents "False Positive Rate" (FPR), which can be calculated by dividing the number of "false positives" by the sum of "false positives" and "true negatives". In this study, the "False Positive Rate" indicates the proportion of "good" accounts that are correctly classified as being "good". The y-axis represents "True Positive Rate" (TPR), which can be calculated by dividing the number of "true positives" by the sum of "true positives" and "false negatives". The "True Positive Rate" indicates the proportion of "bad" accounts correctly classified as being "bad". The curve summarizes all of the FPR and TPR points that each threshold of classification produces. The AUC value of the ROC curve shows the area under the ROC curve. AUC values range from 0 to 1, and a greater value indicates a better and more reliable model (*ROC and AUC* [HH:MM:SS]). KS is one of the most common methods of evaluating models that classify binary results. The KS statistic shows the maximum difference between two cumulative distribution functions of two samples. In this study, the KS statistics is the maximum difference between the cumulative FPR and TPR distribution functions.

Table 7. Results

| Purpose | Data Usage | Percentage | KS | AUC |
|---|---|---|---|---|
| Model Training | Build Initial Model | 5% | 0.314 | 0.7180 |
| Predictor Message/Business Meaning Testify | Holdout10 | 10% | 0.300 | 0.7079 |
| Independent Validation | Holdout85 | 85% | 0.309 | 0.7137 |



ISSN 2076-9202

Figure 3. ROC curve for the model's performance on the training dataset.

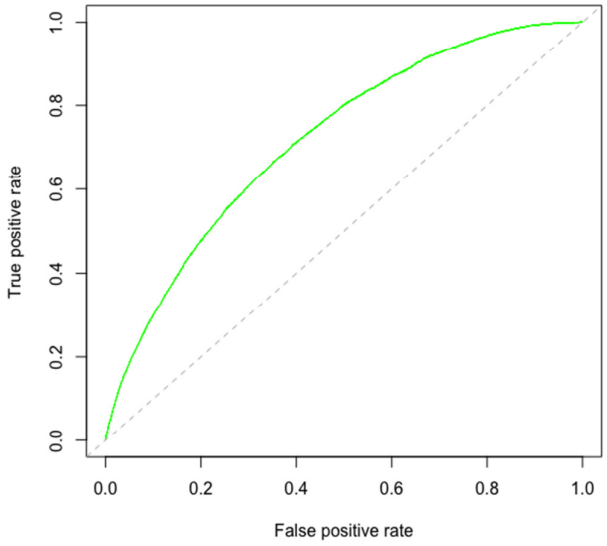



Figure 4. ROC curve for the model's performance on the holdout dataset (85%).

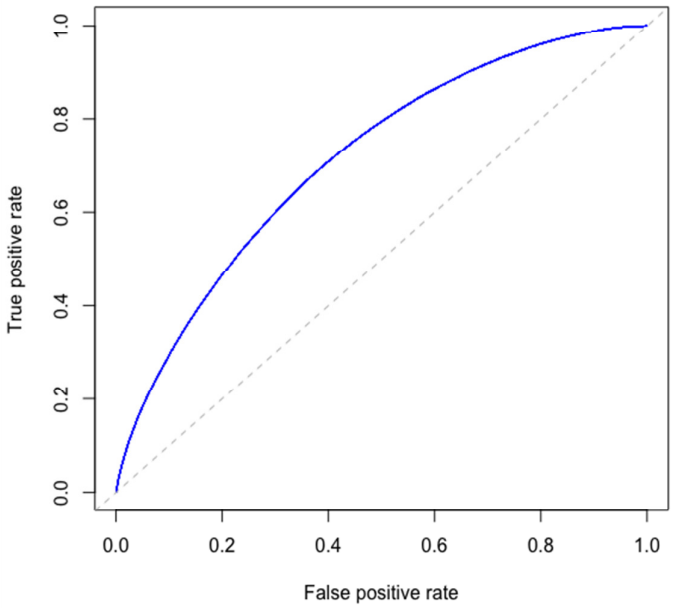
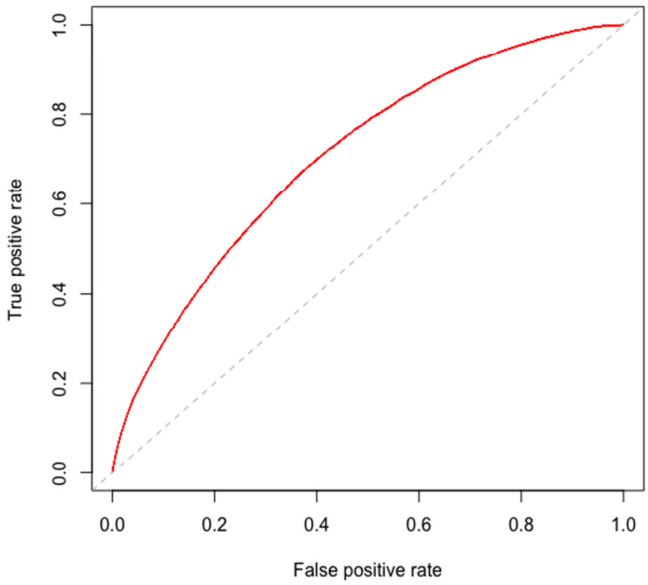



Figure 5. ROC curve for the model's performance on the holdout dataset (10%).



ISSN 2076-9202




## 4. Discussion

### 4.1 Dealing with Categorical Variables that only have a few significant categories

Categorical variables are compared to each other and limited so that only specific categories that have a significance level of <0.001 are included in the final model. For example, the variable "purpose" only has one category that is statistically significant, the "small_business" category, therefore, a new binary variable called "small_business_ID" is created. If the purpose is to start a small business, then the value for the variable is 1. Any other purposes will result in a value of 0 for the variable. The creation of the new binary variable allows the model to be more specialized and accurate than if it had used the original "purpose" variable. As shown in Table 6, the new variable "small_business_ID" is included in the final model.

Figure 1. Logistic regression model summary of variable "purpose"

```
Coefficients:
                          Estimate Std. Error z value Pr(>|z|)
(Intercept)              -2.63159    0.14944 -17.610  < 2e-16 ***
purposecredit_card       -0.11193    0.15323  -0.730   0.4651
purposedebt_consolidation  0.28368    0.15058   1.884   0.0596 .
purposehome_improvement    0.09074    0.15902   0.571   0.5683
purposehouse               0.18607    0.22099   0.842   0.3998
purposemajor_purchase      0.25548    0.17444   1.465   0.1430
purposemedical             0.25948    0.19212   1.351   0.1768
purposemoving              0.50883    0.21368   2.381   0.0173 *
purposeother               0.31961    0.15788   2.024   0.0429 *
purposerenewable_energy    0.52745    0.49671   1.062   0.2883
purposesmall_business      0.78736    0.18447   4.268 1.97e-05 ***
purposevacation           -0.07444    0.23379  -0.318   0.7502
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```



ISSN 2076-9202

### 4.2 Interpretation of the logistic regression analysis

The training dataset contains 67368 observations, which is 5% of all the observations between 2016 and 2018. The dependent variable "bad" has the value of 0 in 61,950 observations and 1 in 5,418 observations. According to the results of the logistic regression analysis in Table 6, the formula of the logistic regression model in this study is presented below.

$$Logit\ of\ \ ChargeOff\ /\ Default = -4.218 + 0.299 * verification_statusSourceVerified +$$
$$0.515 * verification_statusVerified + -1.527 * Disbursement_DirectPayID +$$
$$-0.002 * funded_amnt_inv + 0.082 * int_rate + 0.002 * loan_amnt +$$
$$0.049 * acc_open_past24mths + 0.003 * il_util + 0.115 * pub_rec +$$
$$0.139 * inq_last_6mths + -0.000001 * tot_hi_cred_lim +$$
$$-0.000008 * total_bc_limit + -0.681 * Joint_App_ID + 0.395 * small_businessID$$

Table 8. Summary of logit impact of independent variables

| Variable | Value | Logit Increase (Impact) |
|---|---|---|
| Income verified (by Lending Club) | True | 0.299 |
| Income verified (by another source other than Lending Club) | True | 0.515 |
| Disbursement method of direct pay | False | 1.527 |
| The total amount committed by investors for that loan at that point in time | -1 USD | 0.002 |
| Interest Rate | +1% | 0.082 |
| Loan Amount | +1 USD | 0.002 |



ISSN 2076-9202

| | | |
|---|---|---|
| Number of trades opened in the past 24 months | +1 | 0.049 |
| Ratio between the current balance to the credit limit | +1 | 0.003 |
| Number of derogatory public records | +1 | 0.115 |
| Number of inquiries in the past 6 months | +1 | 0.139 |
| Total credit limit | -1 USD | 0.000001 |
| Total bankcard credit limit | -1 USD | 0.000008 |
| Joint Application | True | 0.681 |
| Purpose of loan is to start a small business | True | 0.395 |

To sum up, an income verified by Lending Club, an income verified, an increase to the interest rate for the loan, an increase to the loan amount, more additional trades opened in the past 24 months, an increase to the ratio between the current balance and the credit limit, more additional derogatory public records, more inquiries in the past 6 months, and using the loan to start a small business increase the probability of Charge Off/Default.

The disbursement method of direct pay, an increase in the total amount committed by investors, an increase in the total credit limit, an increase in the total bankcard credit limit, and a joint application type decrease the probability of Charge Off/Default.

## 5. Conclusion

In this study, a logistic regression model to predict the probability of an account paying back their loan has



ISSN 2076-9202

been developed. The data for this study was provided by Lending Club, the world's largest peer-to-peer lending platform. More than 2,260,668 observations were in the original dataset, and each observation had 145 variables. Accounts originated between 2016 and 2018 that were assigned a value of 0 or 1 for the dependent variable, consisting of 1,349,846 observations, were split into three datasets (training or holdout) used for the development and validation of the model. The language of R version 3.6.1 was used to carry out the computations required to develop the model. Independent variables were compared to each other, and the most significant predictors were included in the final model. The final model consists of 14 independent variables, all of which have a p value of $< 0.001$. The model shows satisfactory results when validated using the datasets. The model achieves an AUC of ROC curve value of 0.7180, 0.7079, and 0.7137 for the training, 10% holdout, and 85% holdout datasets respectively. In addition, it achieves KS statistics of 0.314, 0.300, and 0.309 for the training, 10% holdout, and 85% holdout datasets respectively.

The validation indicates that the model is reliable and stable. As it is shown in table 7, the AUC of the ROC curve for the training dataset does not differ significantly with the holdout datasets, especially the holdout 85%, which is the more reliable of the two. This result shows that the model is stable, meaning it does not overfit the training dataset.

This model can be utilised by financial groups or individual lenders to predict the probability of a loan applicant Charging Off or Defaulting on his or her loan in the future. Predicting these probabilities is essential to making decisions about which applicants to offer loans to and this model can be used to help with the often time consuming and difficult loan decision making process.

## REFERENCES

1. "The FeelGood Money™ Company." *Zopa*, www.zopa.com/about. Accessed 22 Oct. 2019.
2. Kagan, Julia. "Peer-to-Peer Lending (P2P)." *Investopedia*, 17 May 2019,
3. www.investopedia.com/terms/p/peer-to-peer-lending.asp. Accessed 22 Oct. 2019.
4. "LendingClub Statistics." *LendingClub*, www.lendingclub.com/info/statistics.action. Accessed 22 Oct. 2019.
5. P., A. "Lending Club Peer Review." *The Economist*, 5 Jan. 2013,
6. www.economist.com/schumpeter/2013/01/05/peer-review. Accessed 22 Oct. 2019.
7. *ROC and AUC, Clearly Explained!* Produced by Josh Starmer, 2019.

Appendix A.

| Variable Name | Min | Q1 | Median | Mean | Q3 | Max | # of NA |
|---|---|---|---|---|---|---|---|



*ISSN 2076-9202*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| loan_amnt | 500 | 8000 | 12900 | 15047 | 20000 | 40000 | 0 |
| funded_amnt | 500 | 8000 | 12875 | 15042 | 20000 | 40000 | 0 |
| funded_amnt_inv | 0 | 8000 | 12800 | 15023 | 20000 | 40000 | 0 |
| int_rate | 5.31 | 9.49 | 12.62 | 13.09 | 15.99 | 30.99 | 0 |
| installment | 4.93 | 251.65 | 377.99 | 445.81 | 593.32 | 1719.83 | 0 |
| annual_inc | 0 | 46000 | 65000 | 77992 | 93000 | 110000000 | 4 |
| dti | -1 | 11.89 | 17.84 | 18.82 | 24.49 | 999 | 1711 |
| delinq_2yrs | 0 | 0 | 0 | 0.3069 | 0 | 58 | 29 |
| inq_last_6mths | 0 | 0 | 0 | 0.5768 | 1 | 33 | 30 |
| mths_since_last_delinq | 0 | 16 | 31 | 34.5 | 50 | 226 | 1158502 |
| mths_since_last_record | 0 | 55 | 74 | 72.3 | 92 | 129 | 1901512 |
| open_acc | 0 | 8 | 11 | 11.61 | 14 | 101 | 29 |
| pub_rec | 0 | 0 | 0 | 0.1975 | 0 | 86 | 29 |
| revol_bal | 0 | 5950 | 11324 | 16658 | 20246 | 2904836 | 0 |
| revol_util | 0 | 31.5 | 50.3 | 50.34 | 69.4 | 892.3 | 1802 |
| total_acc | 1 | 15 | 22 | 24.16 | 31 | 176 | 29 |
| out_prncp | 0 | 0 | 0 | 4446 | 6713 | 40000 | 0 |
| out_prncp_inv | 0 | 0 | 0 | 4445 | 6710 | 40000 | 0 |
| total_pymnt | 0 | 4273 | 9061 | 11824 | 16708 | 63297 | 0 |
| total_pymnt_inv | 0 | 4258 | 9043 | 11806 | 16683 | 63297 | 0 |
| total_rec_prncp | 0 | 2846 | 6823 | 9300 | 13398 | 40000 | 0 |



ISSN 2076-9202

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| total_rec_int | 0 | 693.6 | 1485.3 | 2386.4 | 3052.2 | 28192.5 | 0 |
| total_rec_late_fee | 0 | 0 | 0 | 1.462 | 0 | 1427.25 | 0 |
| recoveries | 0 | 0 | 0 | 136.1 | 0 | 39859.6 | 0 |
| collection_recovery_fee | 0 | 0 | 0 | 22.59 | 0 | 7174.72 | 0 |
| last_pymnt_amnt | 0 | 308.6 | 588.5 | 3364 | 3535 | 42192.1 | 0 |
| collections_12_mths_ex_med | 0 | 0 | 0 | 0.01815 | 0 | 20 | 145 |
| mths_since_last_major_derog | 0 | 27 | 44 | 44.2 | 62 | 226 | 167989 3 |
| policy_code | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| annual_inc_joint | 5694 | 83400 | 110000 | 123625 | 147995 | 7874821 | 213995 8 |
| dti_joint | 0 | 13.5 | 18.8 | 19.3 | 24.6 | 69.5 | 213996 2 |
| acc_now_delinq | 0 | 0 | 0 | 0.004148 | 0 | 14 | 29 |
| tot_coll_amt | 0 | 0 | 0 | 233 | 0 | 9152545 | 70276 |
| tot_cur_bal | 0 | 29092 | 79240 | 142492 | 213204 | 9971659 | 70276 |
| open_acc_6m | 0 | 0 | 1 | 0.9 | 1 | 18 | 866130 |
| open_act_il | 0 | 1 | 2 | 2.8 | 3 | 57 | 866129 |
| open_il_12m | 0 | 0 | 0 | 0.7 | 1 | 25 | 866129 |
| open_il_24m | 0 | 0 | 1 | 1.6 | 2 | 51 | 866129 |
| mths_since_rcnt_il | 0 | 7 | 13 | 21.2 | 24 | 511 | 909924 |
| total_bal_il | 0 | 8695 | 23127 | 35507 | 46095 | 1837038 | 866129 |



ISSN 2076-9202

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| il_util | 0 | 55 | 72 | 69.1 | 86 | 1000 | 106885 0 |
| open_rv_12m | 0 | 0 | 1 | 1.3 | 2 | 28 | 866129 |
| open_rv_24m | 0 | 1 | 2 | 2.7 | 4 | 60 | 866129 |
| _bal_bc | 0 | 2284 | 4413 | 5806 | 7598 | 1170668 | 866129 |
| all_util | 0 | 43 | 58 | 57 | 72 | 239 | 866348 |
| total_rev_hi_l im | 0 | 14700 | 25400 | 34574 | 43200 | 9999999 | 70276 |
| inq_fi | 0 | 0 | 1 | 1 | 1 | 48 | 866129 |
| total_cu_tl | 0 | 0 | 0 | 1.5 | 2 | 111 | 866130 |
| inq_last_12m | 0 | 0 | 1 | 2 | 3 | 67 | 866130 |
| acc_open_pas t_24mths | 0 | 2 | 4 | 4.52 | 6 | 64 | 50030 |
| avg_cur_bal | 0 | 3080 | 7335 | 13548 | 18783 | 958084 | 70346 |
| bc_open_to_b uy | 0 | 1722 | 5442 | 11394 | 14187 | 711140 | 74935 |
| bc_util | 0 | 35.4 | 60.2 | 57.9 | 83.1 | 339.6 | 76071 |
| chargeoff_wit hin_12_mths | 0 | 0 | 0 | 0.00846 | 0 | 10 | 145 |
| delinq_amnt | 0 | 0 | 0 | 12.37 | 0 | 249925 | 29 |
| mo_sin_old_i l_acct | 0 | 96 | 130 | 125.7 | 154 | 999 | 139071 |
| mo_sin_old_r ev_tl_op | 1 | 116 | 164 | 181.5 | 232 | 999 | 70277 |
| mo_sin_rcnt_ rev_tl_op | 0 | 4 | 8 | 14.02 | 17 | 547 | 70277 |
| mo_sin_rcnt_ tl | 0 | 3 | 6 | 8.3 | 11 | 382 | 70276 |
| mort_acc | 0 | 0 | 1 | 1.56 | 3 | 94 | 50030 |



ISSN 2076-9202

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| mths_since_recent_bc | 0 | 6 | 14 | 24.84 | 30 | 661 | 73412 |
| mths_since_recent_bc_dlq | 0 | 21 | 37 | 39.3 | 57 | 202 | 1740967 |
| mths_since_recent_inq | 0 | 2 | 5 | 7.02 | 11 | 25 | 295435 |
| mths_since_recent_revol_delinq | 0 | 17 | 33 | 35.8 | 51 | 202 | 1520309 |
| num_accts_ever_120_pd | 0 | 0 | 0 | 0.5 | 0 | 58 | 70276 |
| num_actv_bc_tl | 0 | 2 | 3 | 3.68 | 5 | 50 | 70276 |
| num_actv_rev_tl | 0 | 3 | 5 | 5.63 | 7 | 72 | 70276 |
| num_bc_sats | 0 | 3 | 4 | 4.77 | 6 | 71 | 58590 |
| num_bc_tl | 0 | 4 | 7 | 7.73 | 10 | 86 | 70276 |
| num_il_tl | 0 | 3 | 6 | 8.41 | 11 | 159 | 70276 |
| num_op_rev_tl | 0 | 5 | 7 | 8.25 | 10 | 91 | 70276 |
| num_rev_accts | 0 | 8 | 12 | 14 | 18 | 151 | 70277 |
| num_rev_tl_bal_gt_0 | 0 | 3 | 5 | 5.58 | 7 | 65 | 70276 |
| num_sats | 0 | 8 | 11 | 11.63 | 14 | 101 | 58590 |
| num_tl_120dpd_2m | 0 | 0 | 0 | 0 | 0 | 7 | 153657 |
| num_tl_30dpd | 0 | 0 | 0 | 0 | 0 | 4 | 70276 |
| num_tl_90g_dpd_24m | 0 | 0 | 0 | 0.08 | 0 | 58 | 70276 |



ISSN 2076-9202

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| num_tl_op_past_12m | 0 | 1 | 2 | 2.08 | 3 | 32 | 70276 |
| pct_tl_nvr_dlq | 0 | 91.3 | 100 | 94.11 | 100 | 100 | 70431 |
| percent_bc_gt_75 | 0 | 0 | 37.5 | 42.44 | 71.4 | 100 | 75379 |
| pub_rec_bankruptcies | 0 | 0 | 0 | 0.1282 | 0 | 12 | 1365 |
| tax_liens | 0 | 0 | 0 | 0.04677 | 0 | 85 | 105 |
| tot_hi_cred_lim | 0 | 50731 | 114298 | 178243 | 257755 | 9999999 | 70276 |
| total_bal_ex_mort | 0 | 20892 | 37864 | 51023 | 64350 | 3408095 | 50030 |
| total_bc_limit | 0 | 8300 | 16300 | 23194 | 30300 | 1569000 | 50030 |
| total_il_high_credit_limit | 0 | 15000 | 32696 | 43732 | 58804 | 2118996 | 70276 |
| revol_bal_joint | 0 | 15107 | 26516 | 33617 | 43769 | 1110019 | 2152648 |
| sec_app_inq_last_6mths | 0 | 0 | 0 | 0.6 | 1 | 6 | 215264 7 |
| sec_app_mort_acc | 0 | 0 | 1 | 1.5 | 2 | 27 | 215264 7 |
| sec_app_open_acc | 0 | 7 | 10 | 11.5 | 15 | 82 | 215264 7 |
| sec_app_revol_util | 0 | 39.8 | 60.2 | 58.2 | 78.6 | 434.3 | 215448 4 |
| sec_app_open_act_il | 0 | 1 | 2 | 3 | 4 | 43 | 215264 7 |
| sec_app_num_rev_accts | 0 | 7 | 11 | 12.5 | 17 | 106 | 215264 7 |
| sec_app_char | 0 | 0 | 0 | 0 | 0 | 21 | 215264 |



ISSN 2076-9202

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| geoff_within_12_mths | | | | | | | 7 |
| sec_app_collections_12_mths_ex_med | 0 | 0 | 0 | 0.1 | 0 | 23 | 2152647 |
| sec_app_mths_since_last_major_derog | 0 | 16 | 36 | 36.9 | 56 | 185 | 2224726 |
| deferral_term | 3 | 3 | 3 | 3 | 3 | 3 | 2250055 |
| hardship_amount | 0.6 | 59.4 | 119 | 155 | 213.3 | 943.9 | 2250055 |
| hardship_length | 3 | 3 | 3 | 3 | 3 | 3 | 2250055 |
| hardship_dpd | 0 | 5 | 15 | 13.7 | 22 | 37 | 2250055 |
| orig_projected_additional_accrued_interest | 1.9 | 175 | 352.6 | 454.8 | 622.8 | 2680.9 | 2252242 |
| hardship_payoff_balance_amount | 55.7 | 5628.7 | 10044.2 | 11628 | 16114.9 | 40306.4 | 2250055 |
| hardship_last_payment_amount | 0 | 43.8 | 132.9 | 193.6 | 284.2 | 1407.9 | 2250055 |
| settlement_amount | 44.2 | 2227 | 4172.9 | 5030.6 | 6870.8 | 33601 | 2227612 |
| settlement_percentage | 0.2 | 45 | 45 | 47.8 | 50 | 521.4 | 2227612 |
| settlement_term | 0 | 6 | 14 | 13.1 | 18 | 181 | 2227612 |



ISSN 2076-9202

Appendix B.

| Variable Name | Variable Description | Values | Counts | Percentage |
|---|---|---|---|---|
| term | The number of payments on the loan. Values are in months and can be either 36 or 60. | 36 months | 1609754 | 71.21% |
| | | 60 months | 650914 | 28.79% |
| grade | LC assigned loan grade | A | 433027 | 19.26% |
| | | B | 663557 | 29.51% |
| | | C | 650053 | 28.91% |
| | | D | 324424 | 14.43% |
| | | E | 135639 | 6.03% |
| | | F | 41800 | 1.86% |
| home_ownership | The home ownership status provided by the account during registration or obtained from the credit report. Our values are: RENT, OWN, MORTGAGE, OTHER | Any | 996 | 0.04% |
| | | Mortgage | 1111450 | 49.16% |
| | | None | 54 | 0.00% |
| | | Other | 182 | 0.01% |
| | | Own | 253057 | 11.19% |
| | | Rent | 894929 | 39.59% |
| verification_status | Indicates if income was verified by LC, not verified, or if the income source was verified | Not Verified | 744806 | 32.95% |
| | | Source Verified | 886231 | 39.20% |
| | | Verified | 629631 | 27.85% |
| loan_status | Current status of the loan | Charged Off | 261655 | 11.57% |
| | | Current | 919695 | 40.68% |



ISSN 2076-9202

| | | | | |
|---|---|---|---|---|
| | | Default | 31 | 0.00% |
| | | Does not meet the credit policy. Status:Charged Off | 761 | 0.03% |
| | | Does not meet the credit policy. Status:Fully Paid | 1988 | 0.09% |
| | | Fully Paid | 1041952 | 46.09% |
| | | In Grace Period | 8952 | 0.40% |
| | | Late (16-30 days) | 3737 | 0.17% |
| | | Late (31-120 days) | 21897 | 0.97% |
| pymnt_plan | Indicates if a payment plan has been put in place for the loan | n | 2259986 | 99.97% |
| | | y | 682 | 0.03% |
| purpose | A category provided by the account for the loan request. | car | 24013 | 1.06% |
| | | credit_card | 516971 | 22.87% |
| | | debt_consolidation | 1277877 | 56.53% |
| | | educational | 424 | 0.02% |
| | | home_improvement | 150457 | 6.66% |
| | | house | 14136 | 0.63% |
| | | major_purchase | 50445 | 2.23% |
| | | medical | 27488 | 1.22% |
| | | moving | 15403 | 0.68% |
| | | other | 139440 | 6.17% |
| | | renewable_energy | 1445 | 0.06% |
| | | small_business | 24689 | 1.09% |
| | | vacation | 15525 | 0.69% |



ISSN 2076-9202

| | | | | |
|---|---|---|---|---|
| | | wedding | 2355 | 0.10% |
| initial_list_status | The initial listing status of the loan. Possible values are – W, F | f | 725201 | 32.08% |
| | | w | 1535467 | 67.92% |
| application_type | Indicates whether the loan is an individual application or a joint application with two co-accounts | Individual | 2139958 | 94.66% |
| | | Joint App | 120710 | 5.34% |
| verification_status_joint | Indicates if the co-accounts' joint income was verified by LC, not verified, or if the income source was verified | Not Verified | 57403 | 2.54% |
| | | Source Verified | 34827 | 1.54% |
| | | Verified | 23500 | 1.04% |
| | | NA's | 2144938 | 94.88% |



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# NON-PERFORMING LOANS AND ITS IMPACT ON LENDING RATE IN THE BANKING SECTOR OF GHANA

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**ABSTRACT**
The fallen of numerous organizations in Ghana has brought up a great deal of issues among the Ghanaian people regarding whether money related mediators, correctly banks are playing out their capacity adequately. The recent crisis in the banking sector shows that there is an increased in households and firm's default of loans, increasing NPLs and losses to banks. The study shows that there is significant relationship between lending rates and NPLs in the banking sector of Ghana with a coefficient of 0.4042. The public perception that high lending rates charge by banks as a result of high level of NPLs is consistent with the outcome of our study. Thus, the outcome shows that the relationship is significant

## 1.0 INTRODUCTION

The present emergencies that has hit the saving money division in the nation is of real worry to organizations as it has constrained the measure of loanable assets accessible for borrowers to fund their activities both for here and now and in the long haul. This is because of the ascent in the level of nonperforming credits in the records of monetary establishments and banks specifically. Banks fixed credit position on both short and long haul advances to substantial ventures and also to little and medium undertakings (SMEs), referring to increments in the extent of antagonistically grouped advances in all out advance portfolio (as reflected in their non-performing advances (NPLs) proportion) as the major reason.( Bank of Ghana banking sector report Vol. 2.3, 2017, p 4).

Banks' load of Non-Performing Loans (NPLs) remained at GH¢ 8.30 billion as at end of October 2017, from GH¢ 6.52 billion in October 2016. The present supply of NPLs, however high, flags an ease back yearly development to 27.2% from 58.1% in October 2016. In spite of this pattern, the industry's NPLs proportion expanded to 21.6 % in October 2017 from 19.0% a year earlier, because of a log jam in the development of gross loans (Bank of Ghana banking sector report Vol. 2.3, 2017). This financial problem of nonperforming loans has led to the takeover of some banks and even the well performing banks with good management, lending policies and procedures are increasingly becoming victims of nonperforming loans in one way or the other. The magnitude of nonperforming loans is of greater concern to banks policy makers. The most recent is the takeover of Capital and the UT bank by Ghana commercial bank as



*ISSN 2076-9202*

a result of liquidation due to the adverse impact of nonperforming loans and other financial difficulties (Bank of Ghana banking sector report Vol. 2.3, 2017).

The compounding in the nature of nonperforming advances portfolio has been the centre occurrence of managing an account segment's misery and emergencies in the economies of creating countries as well as cutting edge economies. The 2008 worldwide budgetary emergency is no exemption. Its overwhelming impacts, and additionally its beginning from a sharp increment in contract advance defaults in the Unified States, underscore the linkages amongst budgetary and macroeconomic stuns and have restored enthusiasm for the connection between credit advertise erosions and the danger of money related insecurity (Nkusu, 2011).

Banking industry plays a vital role in the development of every economy. The developmental role undertaken by the banking industry is an indication for development of the economy.

Along these lines, banks do allow advances and credit to family units, business associations and in addition government with a specific end goal to coordinate their exercises towards venture and improvement as a mean of contributing toward the monetary improvement of the nation all in all. Be that as it may, if such resources don't create any salary, the banks` capacity to reimburse its liabilities on the due date would be being referred to. Consequently, the bank that manages an account with such resource would wind up frail. Such frail banks will lose the confidence and certainty of the clients. Eventually, unrecoverable measures of advances are composed off as non-performing advance (Malik et al., 2012).

The quick outcomes of nonperforming advances are the decline in spread through the expenses of arrangements for credit misfortunes and the discounting terrible obligations and contracting of loanable assets. The enormous measures of nonperforming advances in the managing an account part have at ordinarily undermined the achievement and really crumbled numerous banks (UT and Capital bank.)

The early research work on nonperforming loans was a masterpiece in trying to find the causes of nonperforming loans, relationship between management practices and nonperforming loans, and impact of nonperforming advances on liquidity, but the exclusion of the impact of nonperforming loans on lending rate in the banking sector leaves a vital research gap to be filled. The research work seeks to find answers to the following questions:

i. What is the impact of NPLS on lending rate in the banking sector?

ii. What has been the pattern of non-performing loans in the banking sector of Ghana for the last 18 years?

iii. iii. What are the reasons for the increase in non-performing loans in the banking sector of Ghana?

iv. Which sector has contributed largely to NPLs?

The research will be of a great help to the government, banking sector regulators, policy makers and credit management departments of banks across the industry. The study is expected to expose impact of nonperforming loans on interest rate.

The study will be significant to the management of banks in the banking industry of Ghana. The finding



ISSN 2076-9202

of the survey will enable the bank managers come out with strategies to help them mitigate the proportion of nonperforming loans in their books. This study will also contribute to the pool of wisdom in the aspect of credit management by banks and help households, businesses and government to make efficient use of borrowed funds to reduce default.

This research will further bring theory to reality while its finding will be used for further studies in the future. This will be of great help to academicians, researchers and students in the area of finance. This research will not end without facilitating individual researchers and users the opportunity to identify gaps in the current research work to enable them carry out further research in those areas.

Generally, this research work looks at the various variables that are affected by nonperforming loans and mainly its impact on interest rate. The period of Analysis is also limited to 1998-2015. This is to guarantee that the outcome mirrors the present pattern of the effect of nonperforming advances on lending rates in the activities of banks in the country.

The remaining sections are literature review, the research methodology and profile of study area, the analysis of data, interpretation, and discussions are contained in the next chapter, and finally recommendation and conclusion.

## 2.0 LITERATURE REVIEW

### 2.1 Theoretical Review

Different scholars and researchers have written and reached extensively on this subject of nonperforming loans. The theories bring to light how lending rates are determined in the banking sector. The significance of these theories therefore is to assist us understand how lending rates are derived in the banking sector. The central banks of Ghana set the benchmark for banks rates of return on loaned funds. Commercial banks rates take into account the risk and costs associated with the lending of funds to borrowers which at times makes repayment punitive to extent that contributes positively to high NPLs. Some of the theories on this subject are discussed below;

#### 2.1.1 Loanable Fund Theory

The loanable resource speculation is an action to develop the built-up theory of interest. It conjectures that money can accept a bothering part in the saving and wander shapes and along these lines causes changes in the level of wage in the economy.

The effect on the varieties that the financing cost has on discretionary cash flow and the general market estimation of their firm, credit chiefs in the managing an account area have a tendency to recognize factors that decide the level of loan fees at any minute in time, and in addition what causes financing cost development after some time. (Rochan,Vernengo, 2001) .

As per Saunders and Cornett (2008), the loanable assets hypothesis of loan fee assurance sees the level of loan fees in money related markets as coming about because of elements that influence the free market activity for products and ventures. In this manner the rate of intrigue is the value that likens the interest for supply of creditable assets. In this way, vacillations in the rate of intrigue emerge from varieties either in the interest for advances or in the supply of credit stores accessible for loaning. This infers intrigue is the value that likens the interest for loanable assets with the supply of loanable assets. The creditable



ISSN 2076-9202

supports subsequently serve as the entireties of cash provided and requested whenever in the currency showcase. The supply of loanable resources is constituted by speculation assets of the overall public and the increments to the money supply.

2.1.2 Liquidity Preference Theory

As per Saunders and Cornett (2008), the liquidity premium hypothesis depends on the possibility that speculators will hold long haul developments just on the off chance that they are offered a premium to adjust for the future vulnerability in a security's esteem, which increments with a benefit's development. They contended advance that due to vulnerability about future loan costs and future money related strategy activities and subsequently about future security costs, making these instruments dangerous as consequently finished a future venture period is obscure. This future vulnerability of return makes it dangerous to hold long haul securities of advances and that hazard increments with the credits development. Also, Keynes (1936), set up that in a universe of vulnerability, here and now securities give more prominent attractiveness (because of their more dynamic auxiliary market) and have less value hazard (because of littler value variances for a given change in loan fees) than the long haul securities.

Moreover, Keynes (1936) characterizes the rate of enthusiasm as a reward for separating with liquidity for a predefined period. In this way the rate of enthusiasm being a reward for separating with liquidity, it is a measure of the unwillingness of the individuals who postures cash to part with their fluid control over it. He contended promote that the rate of premium isn't the "value" which brings into balance the interest for assets to contribute with availability to avoid show utilization. It is the value which equilibrates the want to hold riches as money with the accessible amount of money consequently to suggest that if the rate of premium were lower, the total measure of money which people in general would wish to hold will surpass the accessible supply, and that if the rates were raised, there would be an excess of money which nobody would hold Keynes (2008). The liquidity inclination settles in this way the amount of cash to be held by people in general at a given rate of premium (Boudriga et.al. 2009).

2.1.3 Market Segmentation Theory

The market division hypothesis place that speculators and borrowers have solid development inclinations that they endeavor to achieve when they put resources into or issue settled salary securities (Johnson et. al 2004). He additionally featured that because of this inclination, the money related markets are along these lines fragmented into various littler markets, with free market activity powers special to each portion deciding the harmony yield for each section. Along these lines as indicated by this hypothesis, the central point that assume a part in the assurance of loan costs for a development portion are free market activity conditions which are one of a kind to the development section. Singular financial specialists have favored speculation skylines managed by nature of the benefits and liabilities they hold and these securities with various developments are not seen as ideal substitutes under this hypothesis.

The market division hypothesis additionally accepts that neither speculators nor borrowers will move starting with one development part then onto the next to exploit openings emerging from changes in yields (Boudriga et.al 2009). While business banks chiefly manage here and now securities, protection and venture trust bargain in long haul securities. In this manner MST tends to ignore the way that there is covering between business sectors.



ISSN 2076-9202

2.1.4 Transaction Cost Theory

Transaction costs will be costs (e.g. as far as cash or time) brought about when making a monetary trade. In firms, exchange expenses may incorporate the expenses of sorting out business action after some time, arranging the future and restricting and additionally assigning dangers which may emerge later on. It along these lines incorporates the components of vulnerability and advantage, which are both essential for banters in corporate administration. Coase contended in his 1937 article that exchange costs clarify both the presence of firms and their ideal size. In the Nature of the Firm he recognized certain exchanges which are restrictively exorbitant if the gatherings included could just manage moment showcase exchanges. Keeping in mind the end goal to complete a market exchange it is important to recognize the gathering one wishes to manage, setting up terms and conditions, directing transactions and finishing up an agreement.

The transaction cost hypothesis does not negate the presumption of finish markets. It depends on convexities in exchange advancements. Here, the budgetary go-betweens go about as coalitions of individual loan specialists or scale or extension in the exchange innovation. Exchange cost hypothesis has demonstrated a fundamental system for choice on the vertical limits of the firm. Exchange costs are the cost related to the division of work.

**2.2 Empirical Literature Review**

A few examinations have been on the determinants of nonperforming credits in the keeping money area of Ghana yet are constrained as far as its effect on loan cost. Dimitrios (2011) think about in the Greece keeping money part, found that macroeconomic factors particularly the genuine GDP development rate, the joblessness rate, the loaning rates and open obligation strongly affect the level of NPLs.

As per Muhammad (2012), his examination on the financial determinants of nonperforming credits in Pakistan, discovered financing costs, vitality emergency, joblessness, swelling and trade rates have a noteworthy and direct association with the nonperforming advances while

GDP development has a critical indirect association with the nonperforming advances of Pakistan saving money division. Awful execution of vitality divisions alongside poor monetary settings/conditions were the primary components causing NPLs in Pakistan.

Keeton and Morris (1987) led an exploration in America to recognize the variables which add to nonperforming credits in the keeping money part of this nation by taking information from1979-1985 and as indicated by them awful execution of horticulture and vitality divisions alongside poor monetary settings/conditions are the principle factors causing nonperforming advances, as per the creators vitality emergency prompts terrible of advances in the economy.

As indicated by Tireito (2012), the investigation inspected the connection between financing costs charged by banks in the vicinity of 2007 and 2011 and non-performing credits for similar banks. The creator inferred that there was no huge connection between financing costs and nonperforming credits.

Ongwezo (2005) did an examination on the connection between financing costs and nonperforming credits in business banks in Kenya. Her discoveries uncovered that the general financial enhanced altogether in the nation as market rate premium decreased from 12.02 out of 2000 to 2.96 of every 2004. The examination secured the period from 2000 to 2005 and her discoveries uncovered a positive



ISSN 2076-9202

connection between financing costs and non-performing credits in business banks whereby an expansion in the loan fee came about to an increment in NPLs, a trial of essentialness however uncovered a weaker connection between the two.

Jimenez and Saurian (2005) inspected the Spanish saving money area between 1984 and 2003.They give confirm that NPLs were controlled by GDP development, high loan fees and merciful credit arrangement. An examination led by Karim et al., (2010) on the bank's productivity and non-performing credits from Malaysia and Singapore uncovered that there is no critical differentiation in cost viability between banks in Singapore and Malaysia regardless of the way that banks in Singapore show a higher typical cost capability score. Similarly, bring down cost effectiveness expanded nonperforming advances.

Muriithi (2014) think about on impacts of non-performing credits on liquidity danger of business banks in Kenya reasoned that capital ampleness, nonperforming advances and advances development was found to have the most critical negative impact on liquidity hazard and size of the bank had the slightest beneficial outcome on liquidity.

Mensah (2015) think about on the immediate effect of non-performing credits is the diminishment in Profitability because of terrible obligations and lessening in the assets accessible for advances. In cases where banks have not focused on the issue of nonperforming advances and have proceeded to give more credits, it has once in a while made liquidity issues, keep running on a bank and once in a while, an inevitable fall.

**2.2.1 Causes of Non-performing Loans**

Nonperforming advances are a consequence of the trade-off of the objectivity of credit examination and appraisal. The issue is exasperated by the shortcoming in the bookkeeping, revelation and give of extra advances. In the appraisal of the status of current advances, the borrower's credit value and the market estimation of guarantee are not considered accordingly rendering it hard to spot them. The reasons for credit default change in various nations. It reaches out from borrower's particular demonstration to bank's frail administrative component in propelling advances and checking systems (Munialo, 2014).

**2.2.2 Regulations** what is more, lazy development in economy combined with poor credit-store proportion, the extensive volume of NPLs to be decided sheet and absence of mechanization and professionalization in the task have been influencing the managing an account circumstance in the nation. Mengle (2007), accentuated that the fundamental parts of sound NPL administration are I) speedy distinguishing proof of NPAs, ii) their regulation at least level and iii) guaranteeing least effect of NPAs on the financials. Ngugi (2001) noticed that a wide range of loaning includes three phases where carefulness should be worked out (a)Evaluation and appraisal of the proposition (b) Timely checking and assessment and (c) Proper evaluation of leave choice and methodology. Direction in the budgetary division is gone for diminishing impulsive activities of keeps money with respect to charging high loan fees, insider loaning and decreasing resource defaults. The national banks have accomplished this through loan fee roofs and other fiscal strategies. Demirguc-Kunt and Huizinga (1997), found that advanced contract requirement, productivity of the legitimate framework and absence of debasement is related with bring down acknowledged intrigue edges and resource nonexecution. This is on account of the diminish the default chance connected to the bank loaning rate. In any case, it is noticed that in



ISSN 2076-9202

creating nations directions have a tendency to be on paper however by and by are not implemented reliably and adequately. In this manner, prompting default on credits loan to customers.

The developing rivalry from inside and outer constituents and dormant development in economy combined with poor credit-store proportion, the expansive volume of NPLs to be decided sheet and absence of robotization and professionalization in the task have been influencing the keeping money circumstance in the nation. Mengle (2007), accentuated that the fundamental parts of sound NPL administration are I) brisk distinguishing proof of NPAs, ii) their control at least level and iii) guaranteeing least effect of NPAs on the financials. Ngugi (2001) noticed that a wide range of loaning includes three phases where tact should be worked out (a)Evaluation and appraisal of the proposition (b) Timely observing and assessment and (c) Proper evaluation of leave choice and methodology.

2.2.3 Cost of Asset

Financing cost spread is a measure of advantage between the cost of without a moment's hesitation acquiring and profit for whole deal advancing. Such costs are traded to borrowers who twist up not having the ability to profit their credits. World Bank game plan examine paper on non-performing assets in sub Saharan Africa revealed that dreadful assets are caused by ominous money related staggers with surprising expense of capital and low premium edges (Fofack, 2005). Credit cost is the regard a borrower pays for the utilization of cash they get from a bank/money related foundations or charge paid on procured resources, Crowley (2007). Premium can be thought of as "lease of cash". Financing costs are essential to a business visionary society and are reliably passed on as a rate more than multi year. Financing cost as a cost of cash shows highlight data concerning possible change in the getting effect of cash or future augmentation (Ngugi, 2011).

Budgetary firms inspire for assembly of reserve funds, broadening and pooling of threat and distribution of assets (Nkusu, 2011). Nonetheless, since the receipts for stores and advances are not fit, middle people like banks bring about specific costs (Muniu, 2012). The investigation noticed that financing cost spread influence performing advances in banks as it expands the cost of advances charged on the borrowers, controls on loan fees have a broad consequence for resources execution, for such directions decide the loan cost spread in banks and furthermore assist relieve moral risks coincidental to NPAs.

2.2.4 Credit Risk

As per Saunders and Cornett (2008), Credit chance is the misfortune because of a borrower's non-installment of an advance/resource or other credit extension (either the chief or intrigue). Developments in loan fees tend along these lines to influence the borrower's capacity to respect his commitment when they fall due. Credit standard are factors used to decide a credit searcher's financial soundness or capacity to reimburse obligation. The components join wage, measure of existing individual duty, number of records from other credit sources and cash related record.

Justin (2013) proposed that the most inescapable territory of hazard is an excessively forceful loaning exercise. It is an unsafe practice to expand loaning term past the valuable existence of the comparing guarantee. Other than that, giving out advances to borrowers who are starting at now finished weight with commitment or have negative record of advance reimbursement can open banks to unnecessary default and credit possibility (Quaden, 2004).



ISSN 2076-9202

With a specific end goal to diminish these dangers, banks need to mull over a few normal candidates' particulars, for example, obligation to salary proportion, business and financial record and execution record and for singular credit candidates their opportunity at work or time span. Credit hazard administration is a procedure, and a far-reaching framework. A procedure that starts with recognizing the loaning markets, regularly alluded to as "target markets" and continues through a progression of stages to advance reimbursement. Keeping money establishments confront extraordinary difficulties in overseeing credit hazard (Coopers and Schindler, 2004).

Government controls, inside and outside political obstructions and weights, creation challenges, monetary impediments, showcase disturbances, delays underway calendars and regular precariousness in the business condition undermine the budgetary state of borrowers. Besides, money related data is oftentimes untrustworthy and lawful system does not generally bolster obligation recuperation (Tireito, 2012).

A couple of researchers in like manner hold the view that frightful credits can be caused by issue accounts. Nkusu (2011) appeared in his work that issue credits can transmit from overdrawn account where there is no overdraft confine considered which has not been adequately worked for a long time and overdraft taken in plenitude of sensible working cutoff focuses. Furthermore, he perceived nonattendance of specific incredible capacities and judgment as for the moneylender is a possible explanation behind horrible advances (Ng‟etich, 2011).

2.2.5 Cost Efficiency

Business banks support planning of hold assets, upgrade and aggregating of risks and circulation of assets. However, since the receipt for advances and stores are not organized, they cause certain costs (data costs, operational costs, authoritative expenses and default costs and so forth.) as indicated by Ngugi (2001). Such expenses are considered in when banks set their loaning rates and this clarifies the fluctuation in loaning rates among business banks. Ng'etich contends that various examinations have been done to research the impacts of intrigue spread, and the greater parts of these are in the created nations while a couple in creating nations.

Investors in Ghana are disheartened to spare in business banks because of low returns which constrain financing to potential borrowers. These ramifications of managing an account part wastefulness have added to various verbal confrontations about the determinants of keeping money area financing cost spreads (Muniu, 2012).

2.2.6 Inadequate Attention to Borrowers

Maybe a couple of the advance defaults that raise hell for banks can be faulted for decreased thoughtfulness regarding borrowers. Borrowers give better regard for the credits that they obtained when they have the discernment that better consideration is given to them. Banks on occasion lose trade solely out light of the way that the fundamental decision to credit wasn't right. No ifs ands or buts, in circumstances where there are more veritable risks that the banks review that, they just reason a hardship in the wake of giving a notice sign. More banks lose cash since they don't screen their borrower's property, and nonchalance to see cautioned signs sufficiently early. At the point when banks neglect to give due regard for the borrowers and what they are doing with the cash, at that point they will neglect to



ISSN 2076-9202

see the danger of misfortune. The target of administering a credit is to check, to start with, regardless of whether the premise on which the loaning choice was taken keeps on holding great. Also, regardless of whether the advance assets are as a rule appropriately used for the reason they were conceded.

A bank can utilize distinctive approaches to screen the borrower. To start with, it can catch up the money related solidness of a borrower by occasionally investigating the tasks of the records, confirming the estimation of security and looking at the stock articulations. Furthermore, bank authorities can by and by visit the borrower occasionally to decide the advance of the borrower organization's business movement and where fundamental offering guidance to determine any issues. A bank authority might be named to the top managerial staff of an organization that has been allowed an advance. Banks be that as it may, shun this training, either in light of the fact that they don't have satisfactory authorities who are fit for undertaking the errand, or on the grounds that they might be considered lawfully mindful in case of a borrower getting to be wiped out.

2.2.7 Macroeconomic Instability

Macroeconomic solidness and managing an account soundness are unyieldingly connected. Both monetary hypothesis and exact proof firmly show that shakiness in the full-scale economy is related with flimsiness in saving money and budgetary markets and unsteadiness in these areas is related with precariousness in the large-scale economy. Most issues of poor advance quality looked by banks were intensified by macroeconomic precariousness. This is for the most part showed by high inflationary rate and makes advance evaluation more troublesome for the bank, in light of the fact that the reasonability of potential borrowers relies on eccentric improvement in the general rate of expansion, its individual segments, trade rates and loan fees.

Additionally, resource costs are likewise prone to be profoundly unpredictable under such conditions. Thus, the future genuine estimation of credit security is additionally exceptionally questionable. Banks do ineffectively both when item and resource cost expansion quicken startlingly and when swelling decelerates out of the blue, joblessness increments, or potentially total yield and wage decay out of the blue. Macroeconomic shakiness would have outcomes for the advance nature of banks in any nation. High development assembles the precariousness of business benefits because of its unconventionalities, and in light of the fact that it commonly includes an abnormal state of change in the rates of augmentation of cost of the particular items and endeavors which make up the general esteem document.

The probability that businesses will impact mishaps to climb; as does the probability that they will obtain advantage benefits. For the most part, the impact of macroeconomic flimsiness on the money related division and managing an account specifically makes it a reason for nonperforming credits. Since monetary organizations fundamentally bargain in forward contacts, whose productivity pivots extraordinarily on the capacity to anticipate future costs, they don't do well in unpredictable conditions that expansion vulnerability and make determining more troublesome. To lessen their hazard presentation, the banks collateralize their advances with either the borrowers' evaluated future wage as well as the assessed future estimation of indicated resources. In the event that either the acknowledged pay or acknowledged resource value miss the mark regarding the anticipated qualities, the borrower may default and produce misfortunes for the bank.



ISSN 2076-9202

### 2.3 Determinant of NPLs and Lending Rate

2.3.1 Unemployment

Joblessness happens when a man who is currently looking for business can't look for some kind of employment. (Staff, 2018). Joblessness is frequently utilized as a measure of the wellbeing of the economy. The most successive measure of joblessness is the joblessness rate, which is the quantity of jobless individuals partitioned by the quantity of individuals in the work compel. The capacity of a borrower to pay measure of advance obtained relies upon whether he is utilized or not. Joblessness lessens families' discretionary cashflow and debilitates borrower's capacity to pay their credit portions. Comparable outcomes were exhibited by Nkusu (2011), Louzis et al. (2012), Makri (2014). Nkusu (2011) broke down the linkage between non-performing advances and macroeconomic execution of 26 propelled economies from 1998 to2009. He utilized just macroeconomic factors in his investigation. His disclosures revealed that a poor macroeconomic execution (i.e. slower GDP improvement, higher joblessness or decreasing asset costs) could be related to the extending non-performing credits in front line economies.

2.3.2 Inflation

Inflation is the rate at which the general level of expenses for items and ventures is rising and, in this way, the acquiring vitality of cash is falling (Staff, 2018). There is a positive and critical connection between swelling rate and NPLs. Concentrates in the zone of NPLs focuses to the conclusion that the impact of higher loan fees because of swelling and declining financial conditions which are typically connected with rising expansion, beat the positive effect that swelling may have on borrower’s obligation adjusting limits. This conclusion is in accordance with Mileris (2012) and Nkusu (2011), however not in accordance with Jovovic (2014). She found that an inconsequential and a positive relationship exists between INF rate and NPLs rate;

2.3.3 Economic Growth

Monetary improvement is a development in the point of confinement of an economy to make stock and ventures, stood out from one-time allotment from another. It can be evaluated in apparent or bona fide terms, the remainder of which is adjusted for extension. Usually, add up to budgetary advancement is evaluated similar to net national thing (GNP) or (GDP), though elective estimations are a portion of the time used. Studies show that macroeconomic changes are quickly transmitted to the issue credits of banks in rising nations.

2.3.4 Risk Premium

A risk premium is the landing in wealth of the danger free rate of reestablish a hypothesis is depended upon to yield; an advantage's peril premium is a kind of pay for monetary pros who persevere through the extra risk, appeared differently in relation to that of a danger free asset, in a given wander.Banks consider the risk premium before deciding the measure important to be charged on an advance. As the premium goes up, loaning rate likewise goes which wind up diminishing the borrower's capacity to pay the sum acquired.

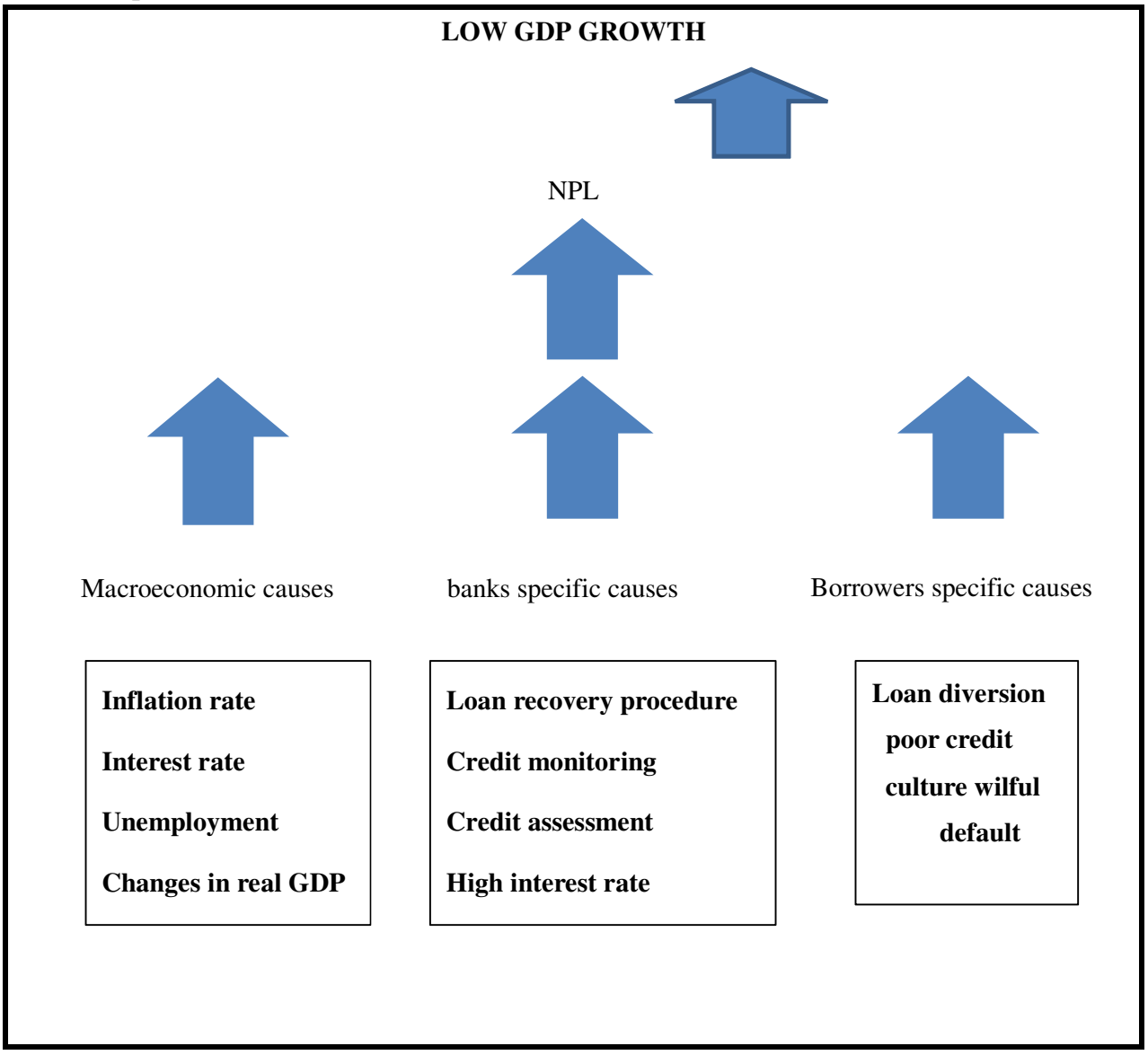
Taking everything into account, loaning rate is additionally controlled by expansion rate in the economy, government treasury bill rates, swapping scale and NPLs. The examination will build up encourage the



ISSN 2076-9202

heading, greatness and noteworthiness in the changeability of the ward variable (Lending Rate) cause by these autonomous factors.

**3.4.0 Conceptual review**




To have a clear conceptual view of the study of nonperforming loans, few of the following tables and diagram are adopted from the bank of Ghana reports on sectorial distribution of credit and NPL, types of consumers and their share of total credit and NPL, and the trend of total credit to GDP to have an in depth view on how it impacts the entire economy as whole.

The adopted tables and diagram are illustrated in table 2.1. 2.2 and diagrams 2.1 respectively.



ISSN 2076-9202

**Table 2.1 The sectoral Distribution of Credits & NPLs**

| Sectorial distribution of credit & NPLs | Dec-12 | Dec-13 | Dec-14 | Dec-15 | Dec-16 |
|---|---|---|---|---|---|
| Agriculture, Forestry and Fishing | 5.30% | 5.20% | 10.00% | 8.00% | 8.80% |
| Mining and Quarrying | 3.50% | 4.40% | 5.50% | 2.00% | 2.40% |
| Manufacturing | 12.20% | 11.50% | 15.00% | 13.00% | 11.30% |
| Construction | 11.60% | 9.90% | 10.00% | 10.00% | 5.50% |
| Electricity, Water and Gas | 1.90% | 1.70% | 2.00% | 2.00% | 12% |
| Commerce and Finance | 38.20% | 37.30% | 35.00% | 38.00% | 39.10% |
| Transport, Storage and communication | 5.70% | 4.00% | 5.00% | 5.00% | 3% |
| Services | 16.70% | 18.10% | 18.00% | 18.00% | 15.10% |
| miscellaneous | 5.30% | 8.00% | 8.00% | 8.00% | 2.70% |

Source: Bank of Ghana Financial Stability Reports and Banking sector Reports

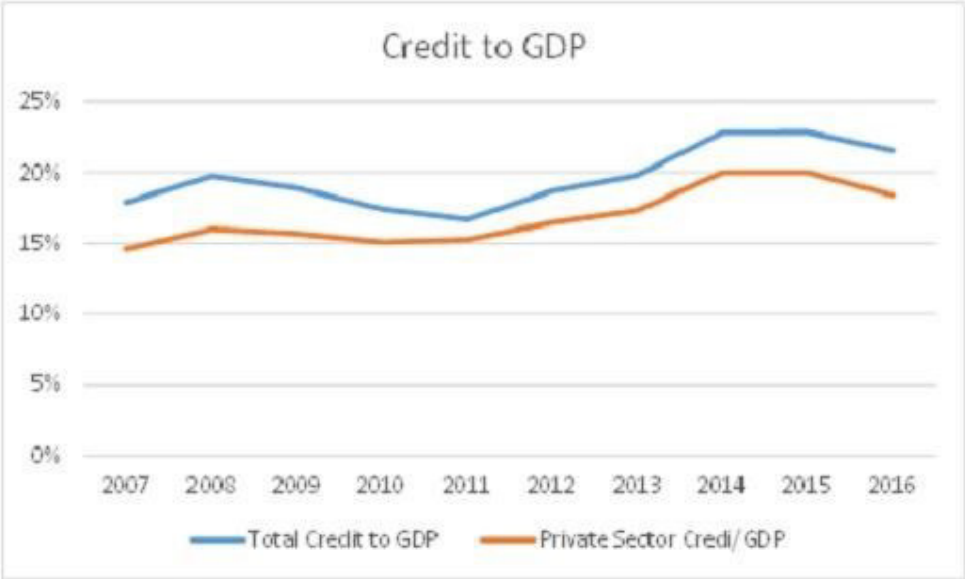
There are fluctuations in credit and NPL across all sectors over the years from the year end

2012 to the end of 2017 as shown in the table above from the Bank of Ghana sectorial report. The two leading sectors, that is the commerce and finance sector and the service sector have seen a decline in credit and NPL distribution a year ago. Other sectors remain unchanged, whiles there is a little increase in few of the sectors.



*ISSN 2076-9202*

**Diagram 2.1 Trend of total credit to GDP**




***Source: BoG financial stability and banking sector report***

The credit to GDP gives a vivid concept on how the study impact on the economy. There was an increase in credit to GDP and private sector credit to GDP from 2007 to 2008, decline from 2008 to 2009 and to that of 2010. Both total credit to GDP and private sector credit to GDP shot up from 2011, 2012, 2013, and to that of 2014. Both again saw a decline from 2015 to 2016-year end. There is therefore a great fluctuation in the supply of credit as a percentage of GDP over the few years.

## 3.0 RESEARCH **METHODOLOGY**

This chapter covers the research design and the methodology that was used to carry out the research. It also outlines the population, the data collection and analysis.

The study solely depended on secondary time series data to achieve its objective. The secondary data sources are timely released by the central bank of Ghana, statistical documents, banking surveys of various years; Ghana statistical service publications and annual published reports from the ministry of finance. Information on the measures of nonperforming credits and banks level of loaning rates was obtained from the WDI.

**Table 3:1 Independent variables for model 1**

| ***Variable*** | ***Notation*** | ***Measurement*** | ***Source*** | ***A Prior expectation*** |
|---|---|---|---|---|



***ISSN 2076-9202***

| | | | | |
|---|---|---|---|---|
| *Non-performing loans* | NPL | NPL as a percentage of Total loans disbursed | WDI | Positive(+) |
| *Inflation rate* | IR | Consumer prices (annual %) | WDI | Positive(+) |
| *Exchange rate* | ER | LCU per US period average | WDI | Negative(-) |
| *Treasury Bill rate* | T-BILL | Rate of %s | WDI | Positive(+) |

**Table 3:2 Independent variables for model 2**

| ***variable*** | ***Notation*** | ***Measurement*** | ***Source*** | ***A prior expectation*** |
|---|---|---|---|---|
| *Gross Domestic product* | GDP | Annual % growth | WDI | Negative(-) |
| *Unemployment Rate* | UR | Unemployed as a % of employed | WDI | Positive(+) |
| *Inflation* | IR | Consumer prices (annual %) | WDI | Positive(+) |
| *Risk premium* | RP | (LR-TBILL)% | WDI | Positive(+) |

3.5 Methods of Data Analysis

For the purpose of this study, the group employed the Augmented Dickey Fuller Test for the stationary test. The E-views software was used to run the test, which the interpretation of the results is done on the basis of accepting or rejecting the Null Hypothesis. The basic analysis is that, if the p-value is less than the conventional percentage level, the null hypothesis will be rejected; that is, the variable is stationary or there is a unit root and the opposite is true. Also, on the basis of comparing the DFT statistic with its tabulated critical value, if the DFT statistic is largely negative than the table critical value, we will reject the null hypothesis of a unit root, otherwise, accept. The more negative the DF test statistic, the stronger the evidence for rejecting the null hypothesis.

The following variables were considered in running the regression; Economic growth (EG), Exchange



ISSN 2076-9202

Rate (ER), Inflation Rate (IR), Lending Rate (LR), Non-performing Loans (NPLs), Risk Premium (RP), Government Treasury Bills Rate (TBILLs) and Unemployment Rate (UR).

Each specific objective was achieved by using a data analysis method suitable for it analysis.

**(i)** To determine the effect of NPLs on lending rates of banks**,** multiple regressions analysis was used to analyse this effect. The model 1 was used with each dependent and independent variable define to give a clear view of what the model intent to portray. The model explained particularly not only by nonperforming loans but also by some macroeconomic variables (inflation, exchange rates).

$$Y=\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

Where;

$Y = Lending\ rate$

$\beta_0 = constant\ parameter$

$X_1 = Nonperforming\ loans$

$X_2 = Inflation\ rate$

$X_3 = Exchange\ rate$

$X_4 = TBills$

$\beta_1 - \beta_4 = regression\ coefficients$

$\varepsilon = error\ term$

**(ii)** Again, the economic model specified to analyse the causes of NPLs in the banking sector of Ghana was multiple regression. This model was employed to help us determine how each of these variables affects NPLs in the banking sector of Ghana.

$$NPL=\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (2)$$

Where in the model;

NPL=Nonperforming Loan



ISSN 2076-9202

$\beta_{0=}constant\ parameter$

$X_1 = Annual\ GDP\ Rate$

$X_2 = Unemployment\ Rate$

$X_3 = Risk\ premium$

$X_4 = Economic\ growth$

$\beta_1 - \beta_4 = regression\ coefficients$

**(iii)** To describe the sector with the highest default rate of NPLs, the group depended on descriptive analyses to achieve this specific objective.

**(iv)** To determine the trend of NPL in the banking sector of Ghana, the group will depend solely on trend graph which gives a conceptual and pictorial view of the trend over the years under research.

The linear or multiple linear regression model and t-statistic will be used to determine the relative importance (sensitivity) of each independent variable (non-performing loans) in affecting the lending rates which will be measured using the appropriate methodology. The results are said to be statistically significant within the three core significance levels; that is, at 1%, 5% and 10% significant levels. In addition, the Pearson Product Moment Correlation Coefficient will be used to test the correlation between the dependent and independent variables at 99%, 95% and 90% confidence level.

## **4.0** DATA ANALYSIS, RESULTS AND DISCUSSION

The research objective is to analyse the impact of nonperforming loans on lending rate in the banking sector of Ghana. This chapter focuses on the analysis and findings with regard to the goal and discussion of the research. The analysis was done using multiple regression models.

### **4.1 Descriptive statistics of the variables**

From **Table 4.1**, it is clear that the standard deviations for the variables (EG, ER, IR, LR, NPLs, RP, TBILLS and UR) are largely different from their means. This means that variations in the values significantly affects the subsequent periods.

The study established that lending rate had a mean of 30.64% with the minimum being 23.75% and the maximum being 47.00%. This resulted in a standard deviation of 7.00% in the reported period of 1998-2015.This is an indication that some quarters had a very large lending rate at 47% while others had low rates of 23.75%. There is an observable deviation between the highest and lowest values. This is an indication that lending rate is purely volatile.

The results further indicated that NPLs had mean of 14.05%, with a minimum value of 6.40% with the maximum value being 22.70% for the 72 observations studied. The deviation between the highest and



ISSN 2076-9202

lowest values for NPLs is 4.20% which is less than that exhibited by lending rates. The Inflation rate, which is an independent variable in both models, for the entire period had a maximum of 32.91% while the minimum was 8.73% and the standard deviation was shown to be 6.40%. This means that some years had very high Inflation rates while others had very low rates to a point of single digits. The single digit value of 8.72683% was observed at a time the country was in economic boom.

Also, the results indicated that economic growth had mean of 1.54%, with a minimum value of 0.83% with the maximum value being 3.95% for the 72 observations studied. The deviation between the highest and lowest values for EG is 0.70%. The exchange rate, which is an independent variable in models 1, for the entire period had a mean of 1.29LCU maximum of 3.82LCU while the minimum was 0.32LCU and the standard deviation was shown to be 0.92LCU.

**Table 4.1; summary of results from both models**

| *Variable* | *Mean* | *Standard Deviation* | *Maximum* | *Minimum* |
|---|---|---|---|---|
| Economic Growth | 1.5357 | 0.7012 | 3.9458 | 0.8326 |
| Exchange rate | 1.2925 | 0.9182 | 3.8200 | 0.2312 |
| Inflation | 15.8127 | 6.3909 | 32.9054 | 8.7268 |
| Lending rate | 30.6394 | 7.0001 | 47.0000 | 23.7500 |
| NPLs | 14.0480 | 4.2006 | 22.7000 | 6.4000 |
| Risk Premium | 9.4861 | 4.8730 | 15.3800 | 0.3700 |
| TBills | 21.1534 | 8.6817 | 41.9890 | 9.6500 |
| Unemployment rate | 5.5556 | 3.0517 | 10.4000 | 1.8000 |

The study also established that Tbills had a mean of 21.15% with the minimum being 9.65% and the maximum being 41.99%. This resulted in a standard deviation of 8.68% in the reported period of 1998-2015.

From **Table 4.1**, is obvious that all the independent variables are volatile within the period under consideration

4.2 Unit Root Test

From **Table 4.2**, since the p-value of NPLs is less than 5%, we reject the null hypothesis (Ho). This implies that NPLs is significant at 5% level; hence, a shift in time will not cause change in the NPLs overtime. Also, the Augmented Dickey Fuller Test statistic (ADFTs) is lower or more negative as compared to the critical value at 5%, which is an indication that there is stronger evidence for rejecting the null hypothesis of a unit root.

From the result, since the probability value of ADFTs is less than 5%, we reject the null hypothesis (Ho). Hence, the shift in time has not cause change in the lending rate overtime.



*ISSN 2076-9202*

Also, the ADFTs is lower or more negative as compared to the critical value at 5%, which is implying that there is stronger evidence for rejecting the null hypothesis of a unit root.

**Table 4.2: Result of Unit Root Test**

| *Variables* | *Levels Constant and Trend* | | *First difference Constant and Trend* | | *Decision* |
|---|---|---|---|---|---|
| | *t-test* | *p-values* | *t-test* | *p-values* | |
| *NPLs* | *-1.9499* | *0.6180* | *-3.8359* | *0.0209*** | *I(1)* |
| *LR* | *-1.8890* | *0.6498* | *-8.2702* | *0.0000**** | *I(1)* |
| *EG* | *-3.3762* | *0.0640** | *-2.9731* | *0.1482* | *I(0)* |
| *ER* | *-0.2130* | *0.9915* | *-3.0102* | *0.1372* | *I(0)* |
| *UR* | *-2.2184* | *0.4721* | *-8.3014* | *0.0000**** | *I(1)* |
| *TBILLS* | *-1.9336* | *0.6266* | *-8.2107* | *0.0000**** | *I(1)* |
| *RP* | *-2.7664* | *0.2144* | *-8.1897* | *0.0000**** | *I(1)* |
| *IR* | *-2.9014* | *0.1684* | *-6.3254* | *0.0000**** | *I(1)* |

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

The findings also show that; Inflation rate, treasury bills rate and risk premium are all stationary across the time period under consideration. All of these variables have probabilities of 0.0000 which is less than 5%; the null hypothesis is therefore rejected with the first differential technique.

4.3 The effect of NPLs on lending rate in the banking sector of Ghana

From the result in **Table 4.3,** the model used is highly relevant. The R-squared which measures the changes in the dependent variable (lending rate) caused by changes in the independent variables is 0.893830. Explaining that, about 89.38% of the changes in the lending rate is respectively caused by changes in the independent variables in the model.

**Table 4.3: Descriptive Statistics of results from model with LR as dependent variable**

| Variable | Coefficient | Std. Error | t- Statistic | Prob. |
|---|---|---|---|---|
| NPL | 0.4043*** | 0.064475 | 6.270595 | 0.0000 |
| IR | 0.2903*** | 0.047917 | 6.059275 | 0.0000 |
| ER | -2.2507*** | 0.286986 | -7.842692 | 0.0000 |
| TBILL | 0.4427*** | 0.034821 | 12.71432 | 0.0000 |
| C | 13.91282 | 1.157971 | 12.01482 | 0.0000 |



*ISSN 2076-9202*

| | |
|---|---|
| R-squared | 0.89 3830 |
| Adjusted R-squared | 0.878686 |
| F-statistic | 177.6337 |
| Prob(F-statistic) | 0.000000 |

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

After accounting for number of independent variables, the R-squared is still high. About 87.87% of the changes in lending rate in the model are explained by changes in the independent variables, as illustrated by the value of the Adjusted R-squared of 0.878686.

The variance inflation factor (VIF) of 9.43 <10, is an indication that no multicollinearity exists. This makes the independent variables in used functionally independent.

The Pro(F-statistic) value of 0.0000 is an indication that the overall model is suitable for the studies undertaken and thus policy makers can rely on it for decision making. The model is therefore robust or highly fitted well for the actual data of the variables under consideration in the research study.

The results from **Table 4.3** test shows that, the coefficient of NPLs is 0.404294. This means that, NPLs positively affects lending rate. Thus, a 1% change in NPLs will increase lending rate by 0.40%. Also, inflation rate has a coefficient of 0.290341. This shows a positive correlation between inflation rate and lending rate. The resultant magnitude is that, a 1% increase in Inflation will lead to 0.29% increase in lending rate. Exchange Rate has -2.25 coefficients, which indicates that, there is inverse relationship between Exchange Rate and Lending Rate. As such, a 1% change in Exchange Rate will result to 2.25% decrease in Lending Rate. There is positive correlation between T-bills and lending rate of 0.442726. This explains that, a 1% rise in T-bills will lead to a 0.44% rise in lending rate.

The results further show that all the independent variables are significant at all the conventional significance levels; that is, at 1%, 5% and 10% respectively. Intuitively, is an indication that these variables are key drivers when determining lending rate. Therefore, policy makers should pay attention to these variables when making decisions concerning lending rate. These findings are consistent with existing literature.

4.4 Analysis of the causes of NPLs in the banking sector of Ghana

The result for model 2 is shown in **Table 4.2.** The R-squared which measures the variations in the dependent variable (NPLs) caused by changes in the independent variables is 0.548459. This shows that, about 54.85% of the changes in NPLs are respectively caused by variations in the independent variables in the model. After accounting for the degrees of freedoms (of number of independent variables), about 51.14% of the changes in NPLs in the model is explained by changes in the independent variables, as illustrated by the value of the Adjusted R-squared of 0.511352. The variance inflation factor (VIF) of



ISSN 2076-9202

2.21 <10, is an indication that no multicollinearity exists. This makes the independent variables in used functionally independent. The overall model developed for this study is significant, taken into consideration the value of Pro (F-statistic) of 0.00002, hence making it suitable for the study.

**Table 4.4; descriptive statistics of results from model 2 with NPLs as Dependent variable**

| | | | | | |
|---|---|---|---|---|---|
| R-squared | | | | | |
| Adjusted R-squared | EG | -0.5486** | 0.697525 | -0.786545 | 0.4343 |
| | RP | 0.2685*** | 0.085775 | 3.130724 | 0.0026 |
| F-statistic | UR | 0.6081*** | 0.151771 | 4.006908 | 0.0002 |
| Prob(F-statistic) | IR | 0.0559** | 0.082240 | 0.680317 | 0.4986 |
| | C | 8.079884 | 2.032827 | 3.974703 | 0.0002 |
| Variable | | Coefficient | Std. Error | t-Statistic | Prob. |

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

From **Table 4:4**, the findings show that, the coefficient of economic growth is -0.5486. This means that, economic growth negatively affects NPLs. Thus, a 1% change in economic growth will decrease NPLs of about 0.5486%. Also, the risk premium (RM-RF) has a coefficient of 0.2685. This shows a positive correlation between risk premium and NPLs. The resultant magnitude is that, a 1% increase in risk premium will lead to 0.2685% increase in NPLs. Unemployment rate has 0.6081 coefficients, which indicates that, there is direct relationship between unemployment rate and NPLs. As such, a 1% increase in unemployment rate will result in 0.6081% increase in NPLs. Also, there is positive correlation between inflation rate and NPLs of 0.055949 coefficients. This explains that, a 1% increase in Inflation Rate will lead to a 0.0559 % increase in NPLs.

The results show that, risk premium and unemployment rate are significant at 1%, whiles inflation rate and economic growth are also significant at 5%. Intuitively, is an indication that these variables are key drivers when considering the causes of NPLs. Therefore, policy makers should pay attention to these variables when making decisions regarding NPLs. These findings are consistent with existing literature on NPLs.

4.5 Trend Analysis of NPLs in the banking sector of Ghana

From **Figure 4.1** the peak of Nonperforming loans in Ghana for the period under consideration were recorded in the year 2002 and the trough or the minimum record of NPLs was in 2007. Our financial and economic intuitive idea for the causes of this peak and trough are further discussed. The formation of national commission on the outline of the future democracy of the country was a driven factor for decline in NPLs from 1998 to 2001. Intuitively, this instilled confidence in investors about the political stability of the country which went a long way to bring higher returns to businesses to pay off their loans.



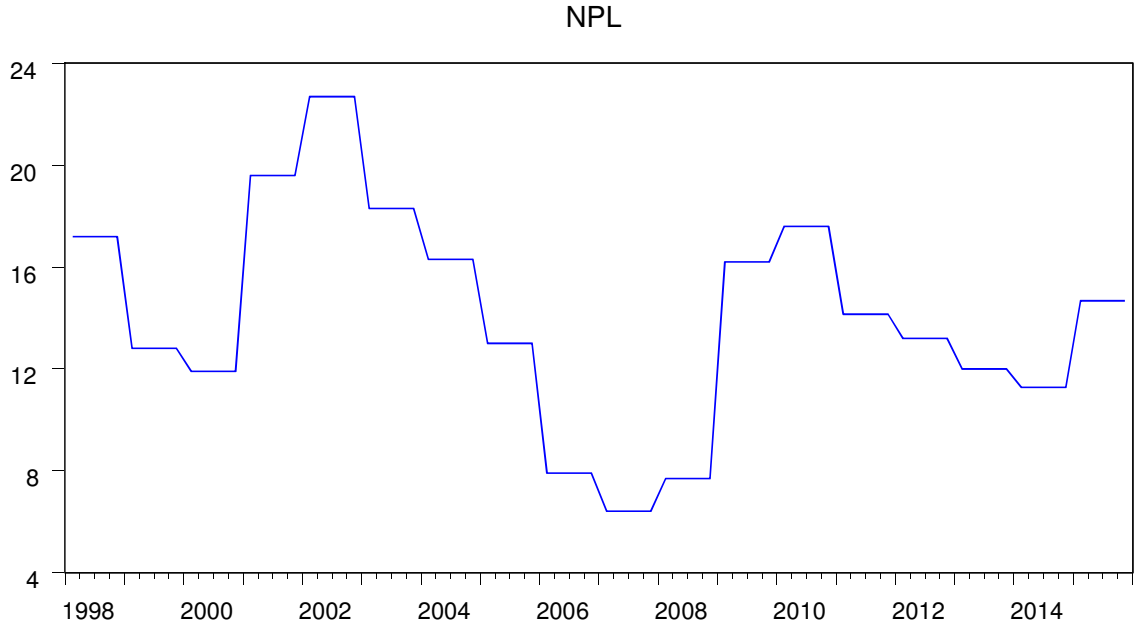
ISSN 2076-9202

After experiencing this fall, there was also a sharp rise in NPLs from 2001 to 2003 as result of change in government. During this era a lot of people lost their jobs because the newly elected government appointed new executive to occupy their positions. This made it very difficult for them to pay off their outstanding loans. The flood displacement and the stadium disaster in 2001 contributed largely to NPLs; economically, many borrowers could not pay off their loans as they were victims to these disasters making them financially incapable to honour their loan obligations.

For trough of NPLs in 2007, a lot of contributory factors added that went a long way to releasing this sharp trough. The debt forgiveness by the IMF under the HIPC declaration by the then government created a financial space which helped in paying off most loan own by the public sector which was previously adding up to the high NPLs in Ghana.

Also, the revaluation of the currency in July 2007 made it easy for loans denominated in foreign currency to be easily repaid which reduced the chunk of NPLs normally recorded by banks. Moreover, during this period, the financial sector saw an increase with a lot of financial institutions coming in into the country, most of which were foreign originated with much modern sophisticated lending and loan applicants screening methods which most indigenous banks adopted which helped reduced NPLs drastically during this period of 2007.

**Figure 4.1**




Also, the trend of the NPLs depicts that, whenever there is a change in government, NPLs will be in ascending for a short number of years. 2008 was not an exception and this peak up in 2010 in a period of two years.

The trough of NPLs recorded in the year 2014 was as result of fast development of the financial sector.



*ISSN 2076-9202*

This brought about information sharing among financial institutions which helped in reducing moral hazard and its associated information asymmetry problems that mostly contributes largely to NPLs. The energy and power crisis that hit the country is an indication of the peak of NPLs in 2015.

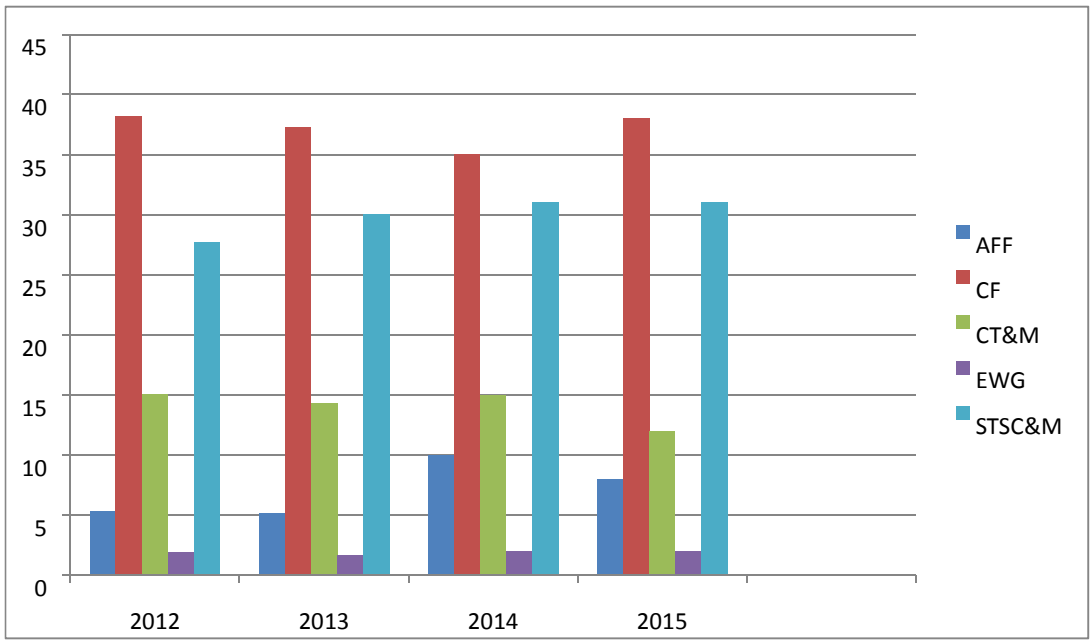
4.6 Sectorial distribution of NPLs in the banking sector of Ghana

Our investigation will be focused selected number of sectors for the analysis. The sectors to be considered include Agriculture, fisheries and forestry (AFF), Commerce and finance (CF), Construction and mining (CM), Electricity, water and Gas (EWG), Services, transport, storage, communication and miscellaneous (STSC&M).

From **figure 4.2,** over the years from 2012 to 2015, CF was the highest contributor to NPLs follow by STSC&M, CT&M, AFF and EWG been the least contributor to NPLs.

Even though CF had a marginal decrease in 2013 and 2014, it went higher to maintain its initial contribution in 2012 to end the year 2015. STSC&M, increases marginally over the years up to 2015 as the second highest contributor to NPLs. CT&M dwindle in 2013, increase the following year to its initial level and then decreases again.

**Figure 4:2 Major contributors of Nonperforming loans**




AFF maintains its initial level in 2013 increases marginally in 2014 and then dwindles again at year end 2015. The least contributor, EWG; maintains its contribution level throughout the years under consideration. The economic intuition is that, most of the entities in this sector are publicly owned, and that the government has fulfilled its debt obligation throughout the period under study.

With CF as the highest contributor to NPLs, the financial intuition is that; CF constitutes all businesses and SMEs which are the highest demanders of loanable funds. Upon obtaining these funds, both internal



ISSN 2076-9202

and external factors crippled their activities bringing low returns which make it difficult to pay off the loans obtained. Hence being the largest contributor to NPLs.

## 5.0 Conclusion

The purpose of the study was to determine the impact of Nonperforming Loans on Lending rates in the Banking sector of Ghana. Due to time and Data availability constraints, the study covered eighteen-year period 1998 and 2015 expanded in quarterly periods of 72.

The study shows that there is significant relationship between lending rates and NPLs in the banking sector of Ghana with a coefficient of 0.4042. The public perception that high lending rates charge by banks as a result of high level of NPLs is consistent with the outcome of our study. Thus, the outcome shows that the relationship is significant. The findings from the causes of NPLs revealed that not all the variables are highly significant.

The trend of NPLs depicts that it had peaks in 2002, 2010 and 2015 with trough recorded in 2000, 2007 and 2014.This is an indication that NPLs is highly volatile. The study further revealed that commerce and finance and electricity, water and gas are the highest and lowest contributing sectors of NPLs respectively.

With NPLs contributing about 0.40% rise in lending rates is of concern to the stakeholders in the banking sector of Ghana. The screenings of both the borrowers and assessment of collaterals values can help them reduce NPLs.

The study further recommends that banks should think of credit separation systems by dividing the clients in view of their needs, measure, kind of business and segments of industry and planning items that meet the one of kind needs of these client portions and furthermore making loaning rating methodology for each fragment. Most banks are concentrated in urban areas instead of spreading their branches to rural areas where most people do not have access to banking services.

The banking industry should embrace new technology and innovations that will enable them know borrowers well to reduce information asymmetry and its associate moral hazard and also help reduce high administrative costs related to loan processing.

We recommend that this impact be tested in a longer time span of years or more quarters so as to determine if there would be consistency in the results. Likewise, comparative investigation ought to be done in other budgetary establishments inside the money related segment, for example, miniaturized scale back foundations in Ghana for examination purposes and to take into account speculation of discoveries on the Impact of nonperforming loans on lending rates.

## REFERENCES

BANK OF GHANA Banking Sector Report Vol.2.3.(2017).

https://www.bog.gov.gh/privatecontent/MPC_Press_Releases/Banking%20Sector%20Report %20%20-%20July%202017.pdf [Accessed 10 Jul. 2017].

Boudriga, A., Boulila, N. & Ellouli, S. J. (2009). Does Bank Supervision Impact



ISSN 2076-9202

Nonperforming Loans: cross-country determinants using aggregate data? Munich personal repec archive, 18068, 1-28.

Chand, S. (2002). Financial Sector Development and Economic Growth in Pacific Island Bulletin, 17(1), 117-133. 44

Coopers, D. R. & Schindler, P. S. (2004). Business Research Methods. New York.

Crowley, J. (2007). Interest rate spreads in English-speaking African countries, IMF working paper, 101,5-14.

Demirguc-Kunt, A., & Huizinga, H. (1997). Determinants of Commercial Bank Interest

Margins and Profitability: Some International Evidence. Washington D.C, World Bank Policy Research Working Paper No. 1900.

Dimitrios P.L., Angelos T.V, & Vasilios L. M. (2011). Macroeconomic and bank specific determinants of nonperforming loans in Greece: A comparative study of mortgage, business and consumer portfolios.

Fofack, H. (2005). Non-performing Loans in Sub-Saharan Africa: Causal Analysis and Macroeconomic Implications. World Bank Policy Research Working Paper No.3769 134154.

Johnson, S., Zuber, R., & Gandar, J. (2004). Market segmentation theory. A pedagogical model for explaining the term structure of interest rates, 10, 6-10. 45

Keeton, W. & Morris, C.S.(1987). Why do banks loan losses differ?Federal Reserve bank of kynsas city, Economic review, 3-21

Kenya. (Unpublished MBA Project). University of Nairobi.

Keynes, M.J. (2008), The general theory of employment, interest and money. New Delhi, ND:

Atlantic Publishers.

Kwambai D. and Wandera M. (2013) Effects of credit information sharing on nonperforming loans: the case of Kenya commercial bank Kenya, Unpublished MBA Project Jomo Kenyatta University of Agriculture and Technology, Nairobi Campus

Mengle, D. (2007, May 14-16). Credit Derivatives: An Overview. Economic ReviewFourth

Quarter, Federal Reserve Bank of Atlanta,1-28

Mohd Zaini Abd Karim & Sok-Gee Chan & Sallahudin Hassan, 2010. Determinants of NonPerforming Loans: Perception of Nepali Bankers. Universiti Utara Malaysia.

Muhammad, F. (2012). Economic determinants of Non-performing loans: Perception of

Pakistan Bankers. European Journal of business and management, 4, 1-14

Munialo ,A. J. L.(2014). The relationship between lending rate and non-performing loans in commercial banks in Kenya. University of Nairobi.



*ISSN 2076-9202*

Muniu, J.I. (2012). The relationship between changes in central bank rate and the level of non-performing loans in commercial banks in Kenya. (Unpublished MBA Project), University of Nairobi.

Ndung‟u, N. & Ngugi, R.W. (2000). Banking Sector Interest Rate Spreads in Kenya, KIPPRA Discussion Paper.

Ng‟etich, J. (2011). The effects of interest rates spread on the level of nonperforming assets; A case of commercial banks in Kenya. International journal of business and public management.1,(1),58-65 46

Ngugi, R.W. (2001). An Empirical Analysis of Interest Rate Spread in Kenya. African

Economic Research Consortium, Research Paper 106,1-52

Nkusu, M. (2011). Nonperforming Loans and Macro-financial Vulnerabilities in Advanced Economies. IMF. Working Paper 11/161.

NY: Irwin/McGraw-Hill.

Ongweso, B. A. (2005) The relationship between interest rates and non-performing loans in commercial banks in Kenya .UON MBA Thesis

Ongwezo, B.A. (2005). The relationship between interest rates and non-performing loans in commercial banks in Kenya. (Unpublished MBA Project), University of Nairobi.

Quaden, G. (2004, May 4). Efficiency and Stability in an Evolving Financial System, Bank for International Settlements Review, 29, 1-3.

Rawlin Rajveer , M. Shwetha M., Sharan and Pradeep B. L. (2012): Modeling the NPA of Midsized Indian Nationalized Bank as Function of Advances; European Journal of Business and Management, Vol 4, No.5,

Saunders, A., & Cornett, M. M. (2008). Financial Institutions Management: A risk Management approach International Edition, McGraw- Hill/Irwin publisher.

Staff, I. (2018). Unemployment. https://www.investopedia.com/terms/u/unemployment.asp [Accessed 10 Jun. 2018].

Staff, I. (2018). Unemployment. https://www.investopedia.com/terms/u/unemployment.asp [Accessed 10 Jun. 2018].

Tireito, J.K. (2012). The relationship between interest rates and non-performing loans in commercial banks in Kenya. (Unpublished MBA Project), University of Nairobi.



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# HEALTH CARE LEADERSHIP COMPETENCIES IN JORDAN: A PROFESSIONALS' PERCEPTION

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**Abstract**

The complexity of health system requires specific managerial skills and competencies; many models were proposed for this purpose to help enhancing the leadership skills of health care institutions. Moreover, those models were proposed to enhance the managerial process and help managers in this sector to achieve effectiveness.

This paper explores the literature of the main healthcare leadership models and extracts the most important competencies that may affect the management process of those institutions.

**Keywords**: Leadership, Healthcare, Leadership models, Managerial competencies.

## 1. Introduction

Peter Drucker stated, “Management is doing things right; leadership is doing the right things.” In that sense, leadership is a social process based on creating and sustaining networks among employees providing them with support, motivation and empathy. Moreover, leadership is about smart allocation of different resources and effective deployment of such resources (Grandy & Holton 2013). There is a rising trend around the world to analyze leadership qualifications, in other words, what makes one person a good leader. This issue has been so contradictory since many believe that a leadership is an inherent set of traits, and a person either has what it takes or not. Whereas, others think that leadership is something that a person can learn and develop over time.

Health care institutions are among the most complex systems in the world. Peter Drucker claimed, “Large health care institutions may be the most complex in human history and that even small health care organizations are barely manageable.” Required competencies of health care leaders were the focus of many research papers in different countries (Clark & Armit 2010; Fulop 2012). However, such topic is not studied in Jordan. Curriculum of medical sciences in Jordan does not implicitly nor explicitly prepare doctors for future roles as managers or leaders. Moreover, being a successful health care manager in Jordan depends to a high extent on person’s own performance and self-development measures.



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The main aim of studying and analyzing leadership capabilities or competencies is to provide a systematic matrix against which future or current health care leaders can self-assess their own abilities and skills. Such assessment will help future and current health care leaders to know their strength and weakness points. As result, insufficiencies in competency can be resolved and developed by attending training sessions, consulting an expert, shadowing or education. Besides, being an effective health care leader has a great influence not only on personal career path but also on the institution performance and patients' assessment and opinions of the organization (Clark & Armit 2010; Fulop 2012, Suifan et al, 2015). In addition, there is an increased tendency towards engaging doctors in managerial and administrative positions in health care organizations since such engagement will have positive effects on health outcomes and the overall performance (Clark 2012; Crethar, Phillips & Brown 2011). Besides, considering the complexity of health care organizations such as hospitals, there is a great debate about how doctors with their expertise are more successful leaders than structural managers (Brazier 2005). Doctors are highly encouraged to widen their vision concerning leadership. Leadership for health professionals is no longer restricted to managing a clinic. Health care leadership involves many activities such like health policymaking, management and clinical leadership (Young et al. 2014).

Competency can be defined as features of employees with behavioral effects that are believed to be linked with achieving a fruitful job (Garman & Johnson 2006; Harms & Crede, 2010). Wass and van der Vleuton (as cited in Clark & Armit 2010) describe the meaning of competency in the clinical setting as "the ability to handle a complex professional task by integrating the relevant cognitive, psychomotor and affective skills". Numerous competencies have been identified by many scholars and regulatory medical institutions (Rubin,2008; Czabanowska et al, 2016). These will be discussed in further detail in the following sections of this paper.

## 2. Leadership Models in healthcare sector

Health care institutions, whether public or private, are aiming to be led by elite managers who will help these institutions to accomplish managerial requirements, financial goals and business strategy. Moreover, health care organization managers can play the role of liaison and figure head for their organizations at business, political and medical levels. However, managers of health care institutions are challenged by the complex nature of such institutions along with variability of its staff (Viitanen & Konu 2009; Alawneh & Sweis, 2016). Such challenges present the necessity of developing a compatible set of competencies to help health care mangers cope and excel at leading their organizations.

In literature, there are many papers tackling the dimensions of health care leadership qualifications. Some scholars examined the use of frameworks from other disciplines. Others tried to apply frameworks that are issued by health care regulating institutions. On the other hand, some scholars tried to come up with a new set of competencies (through qualitative approaches) that can be applied to health care leadership (Tyczkowski et al, 2015). The different competencies frameworks help identify various skills that should be attained by successful health care leaders. However, health care managers or leaders go through stages of skill development as outlined by the Dreyfus model (Stefl 2008, Birks et al. 2009). There are five stages for skill development according to that model which are novice, advanced beginner, competent, proficient and expert. Skills advancement is accompanied by improvement in independent



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decisions depending on experience, personal judgment and intuition.

### 2.1.The application of Quinn's theoretical model

Viitanen and Konu (2009) investigated the application of Quinn's theoretical model of competing leadership roles in health care institutions in Finland. This model (Figure 1) was developed in 1984. It consists of four quadrants that demonstrate four sets of leadership qualities competing leadership roles. Furthermore, this matrix illustrates managerial leaders' orientation in two different dimensions, namely: structure and focus. Besides, there are eight leadership roles shown within this framework.

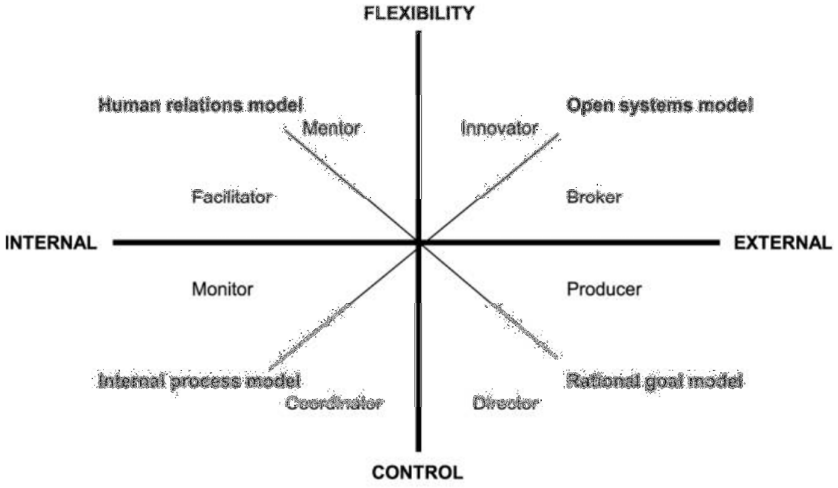


Figure (1): Quinn's model of competing leadership roles. *Note*. From 'Leadership style profiles of middle-level managers in social and health care' (Viitanen & Konu 2009, p.110)

The innovator role of a leader is needed in the unstable constantly-changing environment of today's market. Moreover, the broker role of a leader means that he/she is responsible for establishing partnerships with other related organizations in order to better allocate resources and help in organization growth. Besides, the director role involves planning and setting objectives, whereas, the producer role involves encouraging others to accomplish their tasks. Besides, the monitor role encompasses supervising work and making sure that it meets standards. The coordinator role is about ensuring the smooth flow of work within an organization. Developing people in an empathetic way is part of the mentor role. Conflicts resolution and supporting teamwork are features of the facilitator role (Boutros et al, 2007; Viitanen & Konu 2009). The scholars concluded that the roles in this model can be applied to doctor-managers.

Nilsson and Furaker (2012) argued that leadership is learned through practice. They interviewed health professionals in a number of hospitals in Sweden. The interviews showed that there are many leadership competencies that could be learned through experience. These competencies are clustered into four main types which are managing conflicts, personal development, interpersonal leadership qualities and developing leadership strategies. Managing conflicts is the most important skill that can be developed through experience according to this study. Managing conflicts correctly is accomplished through reinforcing teamwork spirit and integration rather than compromising. Besides, working with people will yield improvement at the level of personal development competencies, which involves improving courage, patience and self-confidence. Compassion, clarity, credibility and the ability to motivate are interpersonal



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leadership qualities that are developed through practice.

### 2.2.CanMEDS Roles Framework

CanMEDS Roles Framework was developed by The Royal College of Physicians and Surgeons of Canada. To become a medical expert according to this framework, a person should fulfill six roles along with their associated competencies. These roles are professional, communicator, collaborator, manager, health advocate and scholar. This framework is highly detailed and can be used for appraisal and for measuring training outcomes. A similar framework was developed by the Board of the National Union of Consultants in the Danish Medical Association. It consists of eight roles and five competencies. The five competencies are personal leadership, political context leadership, quality leadership, leading change and leading professionals. Likewise, analogous competencies were recognized by the Royal Australasian College of Medical Administrators (Clark & Armit 2010).

### 2.3.The Healthcare Leadership Alliance Model (HLA)

The Healthcare Leadership Alliance Model (HLA) is published by a group of six major professional associations in the healthcare sector in the USA. According to this model there are five main competencies which are communication and relationship management, professionalism, leadership, knowledge of the healthcare system, and business skills and knowledge (Boyatzis, 1982; Boyatzis et al, 2000). Each of these competencies contains multiple elements (Stefl 2008). HLA model will be discussed in detail in the theoretical framework section.

### 2.4.The Medical Leadership Competency Framework (MLCF)

The Medical Leadership Competency Framework (MLCF) was formulated by NHS Institute and the Academy of Medical Royal Colleges in the UK. According to the previously mentioned institutions (as cited in Clark & Armit 2010), it is unique in the sense that it views leadership as shared responsibility rather than limited to specific people in the organization. Table (1) below shows MLCF's competencies domains and elements.

Table (1): MLCF's competencies domains and elements. *Note*. From 'Leadership competency for doctors: a framework' (Clark & Armit 2010, p. 123)

| **Domain** | **Elements** |
|---|---|
| **Demonstrating personal qualities** | Developing self-awareness<br>Managing yourself<br>Continuing personal development<br>Acting with integrity |
| **Working with others** | Developing networks<br>Building and maintaining relationships<br>Encouraging contribution<br>Working within teams |
| **Managing services** | Planning<br>Managing resources |



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| | |
|---|---|
| | Managing people<br>Managing performance |
| **Improving services** | Ensuring patient safety<br>Critically evaluating<br>Encouraging improvement and innovation<br>Facilitating transformation |
| **Setting direction** | Identifying the contexts for change<br>Applying knowledge and evidence<br>Making decisions<br>Evaluating impact |

NHS Healthcare Leadership Model consists of nine leadership dimensions. For each dimension, leadership activities are presented on four levels which extend from 'essential' through 'proficient' and 'strong' to 'exemplary' (NHS 2013). The first dimension in this model is 'inspiring shared purpose' which implies unity of direction to provide best value to patients. The second dimension is 'leading with care' and it means that the healthcare leaders should be compassionate and considerate to the feelings of team members, and they should help them eliminate negative emotions that affect the value of service delivered to patients. The third dimension is 'evaluating information' which confirms the traditional role of a leader and that is the role of information receiver and disseminator. The vitality of this dimension is illustrated through the fact that the availability of the right information at the right time and place make a great value for patients. The fourth dimension is 'connecting our service'. It implies the importance of the leader's ability to integrate work with others in the health care organization. The fifth dimension is 'sharing the vision' which means that the leader should have a clear ambitious vision about where the organization will be in the future. Moreover, the leader should be able to motivate employees to work day and night towards achieving this vision. The sixth dimension is 'engaging the team' which means that a health care leader should be able to make every member in the team feel as a part of success and accomplishment. The seventh dimension is 'holding to account' which means that the healthcare leader should be able to set clear targets and performance standards so that staff can meet such standards to provide patient with premium care. The eighth dimension is 'developing capability' which means that the leader should act as role model and help the health organization to grow and develop. Finally, the ninth dimension is 'influencing for results' which means that the health care leader should be able to inspire collaboration to achieve value.

There are various number of leadership competencies available for the healthcare leader. Yet, in this paper it was concluded that HLA model is the most comprehensive providing a worthy learning tool for leaders of health care institutions in Jordan taking into consideration that this movement is still at its early stages.

## 3. Theoretical Framework

This paper used the Healthcare Executive Competencies Assessment Tool. It is offered as an instrument for healthcare executives to utilize in evaluating their skill in essential areas of healthcare



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management (ACHE 2014). This instrument was drawn from HLA model. Each of the competency domains consist of multiple features. Every feature is translated or expressed through a number of statements. The response to each statement ranges from novice, then competent to expert level. Since it is a self-assessment tool, it will help health care leaders identify areas of weakness and strength. As a result, health care leaders will be able to make informed decisions about prioritizing self-development measures.

There are five domains of health care leadership according to HLA model (Stefl 2008) and health care should show competencies in all of the five domains. Each of these will be discussed in details. First domain is 'communication and relationship management' which denotes the ability to cooperate with different stakeholders of the healthcare organization. There are three features that make up this domain which are relationship management, communication skills, and finally facilitation and negotiation (Table 2). There are eight items that form the relationship management feature. The items tackle the capability to form, maintain and develop relationships with different shareholders of healthcare institution. Likewise, nine items measure communication skills aspect. The focus of these items is the aptitude of health care leader to relate to others clearly and easily. Similarly, the 'facilitation and negotiation' consists of seven items. These items depict health care leader skills in team building and conflict resolution (ACHE 2014; Stefl 2008; Garman, Fitz & Fraser 2006).

Table (2): Items pf the first domain 'communication and relationship management'

| *Relationship Management* | *Communication Skills* | *Facilitation and Negotiation* |
|---|---|---|
| Organizational structure and relationships | Public relations | Mediation, negotiation and dispute resolution techniques |
| Build collaborative relationships | Principles of communication and their specific applications | |
| Demonstrate effective interpersonal relations | Sensitivity to what is correct behavior when communicating with diverse cultures, internal and external | Team building techniques |
| Develop and maintain medical staff relationships | Communicate organizational mission, vision, objectives and priorities | Labor relations strategies |
| Develop and maintain supplier relationships | Identify and use human and technical resources to develop and deliver communications | Build effective physician and administrator leadership teams |
| Identify stakeholder needs/expectations | Prepare and deliver business communications, including meeting agendas, presentations, business reports and project communications plans | Create, participate in and lead teams |
| Provide internal customer service | Present results of data analysis to decision makers | Facilitate conflict and alternative dispute resolution |
| Practice and value shared decision making | Provide and receive constructive feedback | Facilitate group dynamics, process, meetings and discussions |
| | Use factual data to produce and deliver credible and understandable reports | |

The second domain of health care leadership competencies is 'leadership' which indicates health care leader potential to motivate individuals to accomplish the organizational vision and to reach excellence. Leadership skills and behavior, organizational climate and culture, communicating vision and managing change are the four aspects included within the leadership domain (Table 3). The eleven elements of 'leadership skills and behavior' describe skills and techniques of different leadership activities. Next, the four items of 'organizational climate and culture' portray the ability of a health leader to celebrate cultural diversity and utilize such power to accomplish superior results. Thereafter, the five



ISSN 2076-9202

items included in communicating vision aspect give a picture of health care leader as instigator and motivator of employees and physicians of the organization. Then, the six items express the aptitude of health care leader to manage change by seizing every possible opportunity to help the institution to develop and grow (Garman, Butler & Brinkmeyer 2006; ACHE 2014; Stefl 2008).

Table (3): Items of the second domain 'leadership'

| *Leadership Skills and Behavior* | *Organizational Climate and Culture* | *Communicating Vision* | *Managing Change* |
|---|---|---|---|
| Leadership styles/techniques | Create an organizational climate that encourages teamwork | Establish a compelling organizational vision and goals | Promote and manage change |
| Leadership theory and situational applications | Create an organizational culture that values and supports diversity | Create an organizational climate that facilitates individual motivation | Explore opportunities for the growth and development of the organization on a continuous basis |
| Potential impacts and consequences of decision making in situations both internal and external | Knowledge of own and others' cultural norms | Encourage a high level of commitment to the purpose and values of the organization | Promote continuous organizational learning/improvement |
| Adhere to legal and regulatory standards | Assess the organization, including corporate values and culture, business processes and impact of systems on operations | Hold self and others accountable for organizational goal attainment | Anticipate and plan strategies for overcoming obstacles |
| Champion solutions and encourage decision making | | Gain physician buy-in to accept risk and support new business ventures | Anticipate the need for resources to carry out initiatives |
| Develop external relationships | | | Develop effective medical staff relationships in support of the organization's mission, vision and strategic plan |
| Collaborative techniques for engaging and working with physicians | | | |
| Incorporate and apply management techniques and theories into leadership activities | | | |
| Foster an environment of mutual trust | | | |
| Support and mentor high potential talent within the organization | | | |
| Advocate and participate in healthcare policy initiatives | | | |

The third domain of health care leadership competencies is 'professionalism'. This domain mostly emphasizes the capability of health care leader to standardize the behavior of all subordinates according to medical code of conduct to protect the rights of patients. The aspects of this domain are 'personal and professional accountability', 'professional development and lifelong learning' and contributions to the community and profession (Table 4). The eleven items of 'personal and professional accountability' tackle the commitment of health care leader towards enforcing ethical actions and culture. The next eight items illustrate the importance of influencing continuous self-development for both the health care leader and the subordinates. The following seven items clarify the significance of the ability of the health care leader to give back to human and professional communities (Garman, Evans, Krause & Anfossi 2006; Stefl 2008; ACHE 2014).



ISSN 2076-9202

Table (4): Items of the third domain 'professionalism'

| *Personal and Professional Accountability* | *Professional Development and Lifelong Learning* | *Contributions to the Community and Profession* |
|---|---|---|
| Patient rights and responsibilities | Professional norms and behaviors | Ethical implications of human subject research |
| Balance professional and personal pursuits | Acquire and stay current with the professional body of knowledge | Participate in community service |
| Ethics committee's roles, structure and functions | Professional societies and memberships | Serve as the ethical guide for the organization |
| Consequences of unethical actions | Contribute to professional knowledge and evidence | Practice due diligence to carry out fiduciary responsibilities |
| Organizational business and personal ethics | Time and stress management techniques | Mentor, advise and coach |
| Cultural and spiritual diversity for patients and staff as they relate to healthcare needs | Conduct self-assessments | Advocate for patients, families and communities |
| Conflict of interest situations as defined by organizational bylaws, policies and procedures | Network with colleagues | Advocate with physicians for the importance of hiring |
| Professional standards and codes of ethical behavior | Participate in continuing education and career planning | professionally trained and certified administrators and supporting their professional development |
| Professional roles, responsibility and accountability | | |
| Uphold and act upon ethical and professional standards | | |
| Adhere to ethical business principles | | |

The fourth domain of health care leadership competencies according to ACHE tool is 'knowledge of the healthcare environment' which is unique to this model since the previously discussed frameworks did not explicitly describe this dimension of health care leadership competencies. This domain focuses on the specific medical and professional knowledge of the health care leader. There are four aspects for this dimension (Table 5). The first aspect is 'healthcare systems and organizations' which consists of ten items. These items describe the necessary aspects of medical system, language and economics that a health care leader should be aware of. The next nine items illuminate the issues related to managing health care staff. The subsequent item is dedicated to portraying the patient's perspective, which means the understandability of the health care manager to appreciate different backgrounds and expectations of patients. The last ten items describe the vitality of recognizing an organization's external environment in terms of laws, regulations, trends and socio-economic components (ACHE 2014; Garman & Tran 2006; Stefl 2008).



ISSN 2076-9202

Table (5): Items of the fourth domain 'knowledge of the healthcare environment'

| *Healthcare Systems and Organizations* | *Healthcare Personnel* | *The Patient's Perspective* | *The Community and the Environment* |
|---|---|---|---|
| Healthcare and medical terminology | Ancillary services | The patient's perspective (e.g., cultural differences, expectations) | Socioeconomic environment in which the organization functions |
| Evidence-based management practice | Workforce issues | | Legislative issues and advocacy |
| Managed care models, structures and environment | Physician roles | | Healthcare trends |
| The interdependency, integration and competition among healthcare sectors | The healthcare sectors | | Implications of community standards of care |
| Levels of healthcare along the continuum of care | Staff perspective in organizational settings | | Healthcare technological research and advancements |
| Levels of service from a business perspective | Nurse and allied health professionals' scope of practice | | Organization and delivery of healthcare |
| Healthcare economics | Support services | | Community standards of care |
| Requirements for nonprofit healthcare organizations | Role of nonclinical professionals in the healthcare system | | Corporate compliance laws and regulations |
| The interrelationships among access, quality, cost, resource allocation, accountability and community | Educational funding for healthcare personnel | | Regulatory and administrative environment in which the organization functions |
| Funding and payment mechanisms of the healthcare system | | | Governmental, regulatory, professional and accreditation agencies |

The fifth domain of health care leadership competencies according to ACHE tool (2014) is 'business skills and knowledge'. This dimension is usually lacking since most doctors did not get any formal instruction in that area which applies in Jordan. There are eight aspects within this domain which are general management, financial management, human resource management, organizational dynamics and governance, strategic planning and marketing, information management, risk management and quality improvement. There are thirty-eight items forming the general management aspect. Moreover, these items cover different common administrative areas (Table 6).

Table (6): Items of 'general management' sub-domain

| *General Management* | | | |
|---|---|---|---|
| Ability to analyze and evaluate information to support a decision or recommendation | Analyze the current way of doing business and clinical processes | Broad systems connections—potential impacts and consequences of decisions in a wide variety of situations both internal and external | Purchasing procurement |
| | Anticipate cause and effect relationships | Systems theory | Develop work plans |
| Collect and analyze data from internal and external sources relevant to each situation | Conduct needs analysis, identify and prioritize requirements | Systems thinking | Perform audits of systems and operations |
| Ability to distinguish relevant from irrelevant information | Define problems or opportunities | Champion systems thinking | Management functions |
| Ability to integrate information from various sources to make decisions or recommendations | Distinguish between important and unimportant aspects of business and clinical situations as a basis for sound decision making | Identify how a system design accommodates business processes | Assess organizational perception of systems effectiveness and departmental effectiveness |
| Basic business contracts | Identify alternate processes and potential solutions | Seek information from a variety of sources | Develop requests for information and requests for proposals |
| Techniques for business plan development, implementation and assessment | Promote and apply problem-solving philosophies | Evidence-based practice | Manage vendor contracts |
| Justify a new business model or business plan | Utilize comparative analysis strategies | Facilities planning | Measure quantitative dimensions of systems and departmental effectiveness |
| Principles of public affairs and community relations | Demonstrate critical thinking and analysis | Inventory control systems | Organize and manage the human and physical resources of the organization to achieve input, buy-in and optimal performance |
| The functions of organizational policies and procedures | Prioritize or triage as necessary to ensure critical functions are repaired, maintained or enhanced | Project management | |



ISSN 2076-9202

The second sub-domain of the 'business skills and knowledge' domain is 'financial management'. It contains twenty-one items (Table 7) that embrace various financial concepts knowledge (Garman, Burkhart & Strong 2006).

Table (7): Items of 'financial management' sub-domain

| *Financial Management* | |
|---|---|
| Basic accounting principles | Asset management, including facilities, equipment, etc. |
| Outcomes measures and management | Analyze financial reward versus risk |
| Financial management and analysis principles | Apply financial planning methodologies to organizational objectives |
| Financial planning methodologies | Develop accounting and financial control systems |
| Financial statements | Develop and use performance monitoring metrics |
| Reimbursement principles, ramifications and techniques, including rate setting and contracts | Develop coding and reimbursement policies and procedures |
| Principles of operating, project and capital budgeting | Establish business relationships with financial advisors |
| Fundamental productivity measures | Maintain compliance with tax laws and filing procedures |
| Financial controls and auditing principles | Negotiate third-party contracts |
| Revenue generation | Provide stewardship of financial resources |
| | Potential impacts and consequences of financial decision making on operations, healthcare, human resources and quality of care |

The third aspect/sub-domain is human resource management. It contains 23 items (Table 8) reviewing several parts of the administration of employees and professionals' affairs.

Table (8): Items of 'human resources management' sub-domain

| *Human Resource Management* | |
|---|---|
| Human resources laws and regulations | Define staff roles, responsibilities and job descriptions |
| Recruitment and retention techniques | Manage departmental personnel processes, including performance appraisals; incentives; staff recruitment, selection and retention; training and education; coaching and mentoring |
| Performance management systems | Job classification systems |
| Staffing methodologies and productivity management | Develop and implement policies and procedures with physicians to address physician behavioral and burnout issues |
| Employee satisfaction measurement and improvement techniques | Develop and manage employee performance management systems |
| Employee motivational techniques | Develop effective physician recruitment and retention programs |
| Compensation and benefits practices | Develop employee benefit and assistance plans |
| Worker safety, security and employee health issues | Engage in workforce planning |
| Conflict resolution and grievance procedures | Evaluate and manage employee efficiency and productivity |
| Organizational policies and procedures and their functions | Potential impacts and consequences of human resources |
| The need for and/or desirability of outsourcing | Decision making on operations, finances, healthcare and quality of care |
| The varying work environments in which staff work | |

The fourth sub-domain is the organizational dynamics and governance. It encloses fifteen items (Table 9). The skills involved in these items show the importance of health care leader awareness of how organizational systems are designed and controlled (Garman, Burkhart & Strong 2006; ACHE 2014).



ISSN 2076-9202

Table (9): Items of 'organizational dynamics and governance' sub-domain

| *Organizational Dynamics and Governance* | |
|---|---|
| Organization systems theories and structures | Principles and practices of management and organizational behavior |
| Medical staff structure and its relationship to the governing body and facility operation | Build trust and cooperation between/among stakeholders |
| How an organization's culture impacts its effectiveness | Construct and maintain governance systems |
| Governance theory | Document and implement policies and procedures |
| Governance structure | |
| Interpret and integrate federal, state and local laws and regulation | Evaluate and improve governing bylaws, policies and processes |
| Public policy matters and legislative and advocacy processes | Facilitate physician understanding and acceptance of good business management |
| Organizational dynamics, political realities and culture | Manage the performance of subsystems in a manner that optimizes the whole synergy |

The fifth sub-domain is the strategic planning and marketing. It encompasses sixteen items (Table 10). The items stress the importance of knowledge of external communication channels and the superior methods to utilize such channels. At the end of the day, a health care organization seeks to attract customers to achieve its business goals (Garman, Burkhart & Strong 2006; ACHE 2014).

Table (10): Items of 'strategic planning and marketing' sub-domain

| *Strategic Planning and Marketing* | |
|---|---|
| Business plan development and implementation process | Crisis and disaster planning |
| Business planning, including business case and exit strategy development | Characteristics of strategic decision support |
| Evaluate whether a proposed solution aligns with the organizational business plan | Strategic planning processes development and implementation |
| Marketing principles and tools | Develop and monitor departmental strategic and tactical objectives |
| Marketing plan development | Develop a benefits realization model that measures product or service performance to ensure that strategic goals are met |
| Manage projects and/or resources | Organizational mission, vision, objectives and priorities |
| Healthcare system services | Plan for business continuance in the face of potential disasters that could disrupt service delivery |
| Implementation planning | Pursuing and establishing partnerships and strategic alliances |

The sixth sub-domain is the information management. It encompasses twenty-five items (Table 11). A health care leader should be aware of information technology issues and any application related to the organization (ACHE 2014).



ISSN 2076-9202

Table (11): Items of 'information management' sub-domain

| *Information Management* | |
|---|---|
| Application software | Information systems continuity |
| Characteristics of administrative systems/program | Analyze problem reports for trends |
| Characteristics of clinical systems/programs | Conduct demonstrations, evaluate and select healthcare IT systems |
| Confidentiality principles and laws | Ensure accuracy and integrity of data |
| Data analysis, including manipulation, understanding of and ability to explain data | Compatibility of software, hardware and network components to facilitate business operations |
| Electronic education and information resources and systems | Ensure staff is trained to use information systems |
| Health informatics | Evaluate results of a system security/privacy effectiveness |
| Information systems planning and implementation | Integrate IT systems that support decision making |
| Technology trends and clinical applications | Link the IT plan to the business plan |
| Principles of database and file management | Monitor IT systems' sustainability, reliability and maintainability |
| Technology privacy, confidentiality and security requirements | Monitor and adjust IT system capacity |
| Role and function of information technology in operations | Recommend policies and procedures for information systems management |
| Testing and evaluation activities of IT systems | |

The seventh sub-domain is the risk management. It encompasses twenty items (Table 12). This aspect is quiet critical in health care organizations since there are various sources of risk in such settings. Knowledge of risk management is of prime importance to any health care leader or manager (ACHE 2014).

Table (12): Items of 'risk management' sub-domain

| *Risk Management* | Personnel and property security plans and policies |
|---|---|
| Risk management principles and programs | Professional resource networks for risk-related activities |
| Confidentiality principles and laws | Risk assessments and analyses |
| Corporate compliance laws and regulations | Risk mitigation |
| Medicare/Medicaid/third-party payment regulations | Risks related to personnel management |
| Inspection and accrediting standards, regulations and organizations | Risks related to quality management and patient safety |
| Patients' rights, laws and regulations | Conflict resolution and grievance procedures |
| Compliance with regulatory agencies and tax status requirements | Establish patient, staff and organizational confidentiality policies |
| Contingency planning | Maintain compliance with government contractual mandates |
| Corporate history and record-keeping procedures | Plan for business continuance in the face of potential disasters that could disrupt service delivery |
| Credentialing, medical malpractice and professional liability | |

The last sub-domain is the quality improvement. It includes seventeen items (Table 13). The items emphasize the fact that quality is a moving goal. Any medical leader should always aspire to make the organization best in its class (ACHE 2014).

Table (13): Items of 'quality improvement' sub-domain

| *Quality Improvement* | |
|---|---|
| Benchmarking techniques | Data collection, measurement and analysis tools and techniques |
| Medical staff peer review | Patient communication systems |
| Clinical methodologies | Quality improvement theories and frameworks |
| Utilization review and management regulations | Quality planning and management |
| Clinical pathways and disease management | Recognition of quality as a strategic initiative |
| National quality initiatives, including patient safety | Training and certification |
| Knowledge of tools for improving patient safety | Develop and implement performance and process improvement programs |
| Customer satisfaction principles and tools | Develop and implement quality assurance and patient satisfaction programs |
| | Develop clinical pathway structure and function |



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## 4. Methodology

The objective of this paper is to identify the most significant competencies of leadership needed in healthcare sector in Jordan. For this purpose, (29) published articles and websites were reviewed for identifying these competencies.

The following frame work clarifies the variables used for measuring the leadership competencies.

After thorough analysis of available literature, it was concluded that there are five dimensions that might form the aspects of health care leadership competencies in Jordan. These dimensions adapted from HLA (ACHE 2014) are:

- Communication and Relationship Management
- Leadership
- Professionalism
- Knowledge of the Healthcare Environment
- Business Skills and Knowledge

The dynamics of these relationships are illustrated in Figure (2).

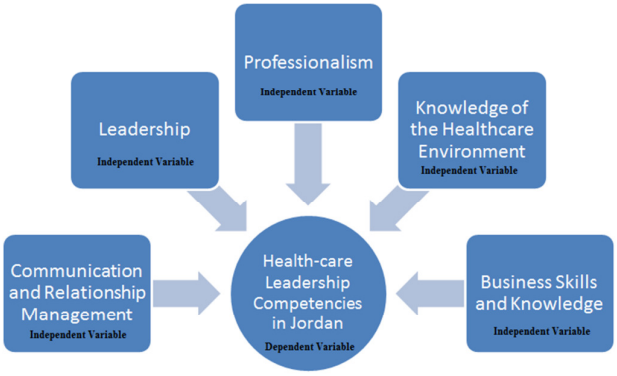


Figure 2: Diagram of the relationship among independent and dependent variables

## Conclusion and Recommendations

This literature review investigated and explored several articles related to competencies needed for effective leadership in health sector.

This study will contribute to the body of knowledge in its field. Moreover, it states a proposed framework as a base for studies in this field, based on HLA model to determine the leadership competencies. The findings shall be taken in to considerations to enhance the leadership activities and practices at the health sector.



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## References

Alawneh, A. R., and Sweis, R. J. (2016), "The relationship between emotional intelligence level and the effectiveness of a project manager: the case of Jordan", *International Journal of Information, Business and Management*, Vol. 8 No. 3, pp. 13.

Birks, Y., McKendree, J., and Watt, I. (2009), "Emotional intelligence and perceived stress in health care students: a multi-institutional, multi-professional survey", *BMC medical education*, Vol.9 No.1, pp. 61.

Boutros, A., and Joseph, C. B. (2007), "Building, maintaining and recovering trust: A core leadership competency", *Physician executive*, Vol.33 No.1, pp. 38-41.

Boyatzis, R. E. (1982), "*The competent manager: A model for effective performance"*, New York, NY: John Wiley & Sons.

Boyatzis, R. E., Goleman, D., and Rhee, K. (2000), "Clustering competence in emotional intelligence: Insights from the Emotional Competence Inventory (ECI)", *Handbook of emotional intelligence*, 99(6), 343-362.

Brazier, DK 2005, 'Influence of contextual factors on health-care leadership', Leadership & Organization Development Journal, vol. 26, no. 2, pp. 128-140.

Czabanowska, K., Malho, A., Schröder-Bäck, P., Popa, D., and Burazeri, G. (2014), "Do we develop public health leaders? association between public health competencies and emotional intelligence: a cross-sectional study", BMC medical education, Vol.14 No.1, pp.83.

Clark, J & Armit, K 2008, 'Attainment of competency in management and leadership: No longer an optional extra for doctors', Clinical Governance: An International Journal, vol. 13, no. 1, pp. 35-42.

Clark, J & Armit, K 2010, 'Leadership competency for doctors: a framework', Leadership in Health Services, vol. 23, no. 2, pp. 115-129.

Clark, J 2012, 'Medical leadership and engagement: no longer an optional extra', Journal of Health Organization and Management, vol. 26, no. 4, pp. 437-443.

Crethar, M, Phillips, J & Brown, P 2011, 'Queensland Health – a leadership development journey', Leadership in Health Services, vol. 24, no. 4, pp. 308-324.

Fulop, L 2012, 'Leadership, clinician managers and a thing called "hybridity"', Journal of Health Organization and Management, vol. 26, no. 5, 2012, pp. 578-604.

Garman, AN & Johnson, MP 2006, 'Leadership Competencies: An Introduction', Journal of Healthcare Management, vol.51, no.1, pp. 13-17.

Garman, AN & Tran, L 2006, 'Knowledge of the Healthcare Environment', Journal of Healthcare Management, vol. 51, no.3, pp. 152-155.

Garman, AN, Burkhart, S & Strong, J 2006, 'Business Knowledge and Skills', Journal of Healthcare Management , vol. 51, no.2, pp. 81-85.



***ISSN 2076-9202***

Garman, AN, Butler, P & Brinkmeyer, L 2006, 'Leadership', Journal of Healthcare Management, vol. 51, no.6, pp. 360-364.

Garman, AN, Evans, P, Krause, MK & Anfossi, J 2006, 'Professionalism', Journal of Healthcare Management , vol.51, no.4, pp.219-222.

Garman, AN, Fitz, KD & Fraser, MM 2006, 'Communication and Relationship Management', Journal of Healthcare Management, vol. 51, no.5, pp.291-294.

Grandy, G & Holton, J 2013, 'Leadership development needs assessment in healthcare: a collaborative approach', Leadership & Organization Development Journal, vol. 34, no. 5, 2013, pp. 427-445.

Harms, P.D. and Crede, M. (2010), "Emotional intelligence and transformational and transactional leadership: a meta-analysis", Journal of Leadership and Organizational Studies. Vol.17 No.1, pp. 5-17.

NHS 2013, Healthcare Leadership Model: The nine dimensions of leadership behavior. Available from: <www.leadershipacademy.nhs.uk >. [30 October 2014].

Nilsson, K & Furaker, C 2012, 'Learning leadership through practice – healthcare managers' experience', Leadership in Health Services, vol. 25, no. 2, pp. 106-122.

Rubin P. (2008), "Defining competencies for hospital management: A comparative analysis of the public and private sectors", Leadership in Health Services, Vol. 21, No.2, pp. 99-110.

Suifan, T. S., Abdallah, A. B., and Sweis, R. J. (2015), "The Effect of a Manager's Emotional Intelligence on Employees Work Outcomes in the Insurance Industry in Jordan", International Business Research, Vol. 8 No.9, pp. 67.

Stefl, M 2008, 'Common Competencies for All Healthcare Managers: The Healthcare Leadership Alliance Model', Journal of Healthcare Management, vol.53, no.6, pp. 360-374.

The American College of Healthcare Executives ACHE 2014, ACHE Healthcare executive competencies assessment tool. Available from: <www.ache.org/pdf/nonsecure/careers/competencies_booklet.pdf >. [29 October 2014].

Tyczkowski, B., Vandenhouten, C., Reilly, J., Bansal, G., Kubsch, S. M., & Jakkola, R. (2015), "Emotional intelligence (EI) and nursing leadership styles among nurse managers", Nursing administration quarterly, Vol. 39, No.2, pp.172-180.

Viitanen, E & Konu, A 2009, 'Leadership style profiles of middle-level managers in social and health care', Leadership in Health Services, vol. 22, no. 2, pp. 108-120.

Young, P, Smith, C, Pettigrew, L, Neul Seo, H & Blane, D 2014, 'International work and leadership in UK general practice', Leadership in Health Services, vol. 27, no. 2, pp. 87-103.



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# DOES INFLATION INFLUENCE UNEMPLOYMENT IN ZIMBABWE? AN ECONOMETRIC ASSESSMENT

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**Abstract**:

In Zimbabwe, inflation and unemployment are the ever green subject discussed among economists and policy makers. Zimbabwe is taking significant strides towards reduction of unemployment through the President of Zimbabwe Cde. E.D Mnangagwa's banner 'Zimbabwe is Open for Business'. The most common cause of Zimbabwe's high unemployment is that of shrinking industrial sector. Again, inflation is another macro-economic variable that Zimbabwe government is constantly putting check on, due to its debilitating effects. Zimbabwe had a hyperinflation for a considerable timeframe, which saw the economic general welfare of citizens being eroded. During the time of hyperinflation, unemployment rate was also high. The present study has been conducted to investigate the causal effect between inflation and unemployment. The Granger Causality Test has been used in the study for the data set from 1990-2017. It is found that unemployment positively and significantly granger causes inflation in Zimbabwe. In the light of the findings of this study, it is suggested that Zimbabwe should use job creation policies to mitigate unemployment, thereby supressing inflation rate.

**Keywords:** inflation, unemployment, granger causality, stationarity, unit root

## INTRODUCTION

Zimbabwe economy has not been performing well in the recent past, despite the huge human capital and natural resources it enjoys. The country is characterized of low level of per capita income, high levels of inflation and unemployment and many other socio-economic challenges. Inflation and unemployment variables were singled out to be exacerbating under development in the country. Some strategies are being implemented to growth the economy, and signs of recovery are being experienced, though at a snail-pace. The need to avert the negative effects of unemployment and inflation has resulted in this study to determine, which variable influences the other, the findings of which would assist policy makers to come up with policies that enhances the reduction in the rate of both variables.

## BACKGROUND TO THE PROBLEM OF THE STUDY

The economy of Zimbabwe has experienced hyperinflation, with the highest rate of 156,9 % recorded in



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2008 against unemployment rate 5,4% (1). This disposition is reminiscent of the high inflation which the economy experienced from 2000 to 2008 and this constrained much of the industrial production capacity in the country. Most of the commodities in the market have been export products mainly from South Africa which would normally have higher prices than the prices in Zimbabwe. Also, the Zimbabwean dollar in the period 2006 to 2008 continued to be under severe pressure on both the official and parallel market exacerbating the inflation rate (2).

Zimbabwe recorded high levels of inflation, with 113,5% in 2004, followed by 32,9%, 72%, and 156,9% during the period 2006 to 2008 (1). On the other hand, the country's unemployment rate stood at 4.2% in 2004 followed by 5,6%, 5,5% and 5,4% during the same period (1). Policy makers came up with different market policies that sought to stabilise prices of goods and services. From 2009 to 2017, the country recorded an inflation average of 2,8% against an average unemployment rate of 5,2%, acceptable by all standards (3). The following line graph depict the trajectory being followed by unemployment and inflation data from year 1990 to 2017.

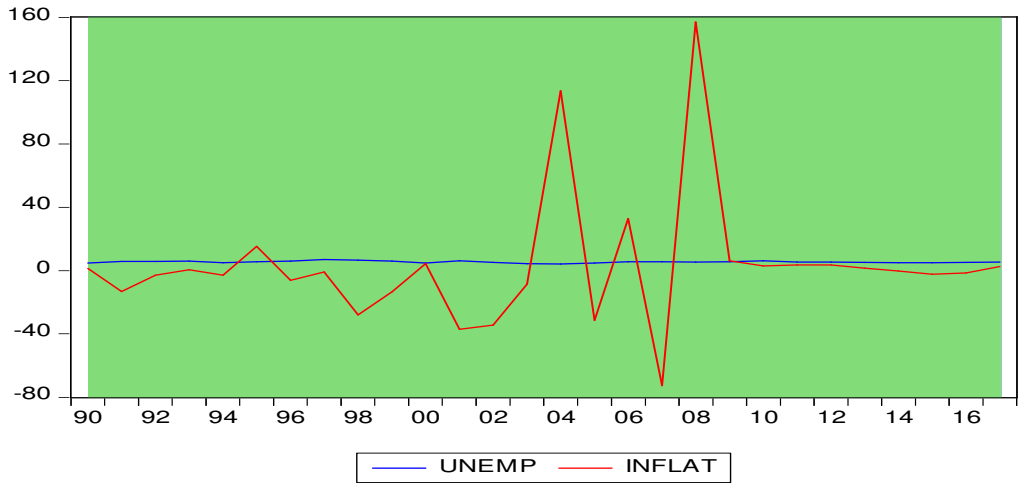


Figure 1. Unemployment and Inflation Data for the Zimbabwe for period 1990 to 2017. *Adapted from IMF,* (2018).

The unemployment and inflation data seem to be moving in the same direction. This study is a contribution to the growing literature aimed at understanding the direction of influence between inflation and unemployment rate using Zimbabwe data with a more extended and updated period of study 1990 to 2017.

## STATEMENT OF THE PROBLEM

Unemployment and Inflation is among the major problems not only in less developed and developing countries but also in developed countries (4). The two economic indicators have received much



ISSN 2076-9202

attention among economic analysts, governments, and scholars in pursuit of better understanding of their occurrence as well as their relationship. Zimbabwe had a record high of both inflation and unemployment rates (4), with policies introduced to manage the two macro-economic indicators with little success. This study seeks to determine the causal relationship between the two macro-economic variables so that informed policies can be recommended for the Zimbabwe economy.

## RESEARCH OBJECTIVES AND HYPOTHESIS

The objective of this study is to determine the causal relationship between inflation and unemployment rates so that informed policies may be recommended. The hypothesis that pinned this study is that unemployment does not granger cause inflation, and that inflation does not granger cause unemployment.

## REVIEW OF RELATED LITERATURE

The concept of inflation has been defined as a persistence in the general price level of broad spectrum of goods and services in a country over a long period of time. Also, Inflation was described by Oliver (5) as, an economic situation when the increase in money supply is faster than the new production of goods and services in the same economy. Forder (6), distinguish inflation from an economic phenomenon as a onetime increase in prices, or when there are price increases in a narrow group of economic goods or services. Balami (7) also sees inflation as a situation of rising a general price of broad spectrum of goods and services over a long period of time. It is, measured as the rate of increase in the general price level over a specific period of time. On the other hand, the International Labour Organisation (ILO) defines unemployment as numbers of the economically active population who are without work, but available for and seeking work, including people who have lost their jobs and those who have voluntarily left work (8). In Zimbabwe, unemployment measures the number of people actively looking for a job as a percentage of the labour force and is calculated by dividing the number of unemployed persons aged 15 years and above by the economically active population in that age range (9).

Although there seems to be convergence on the inflation-unemployment concept, its applications have been bedevilled with series of problems across countries. First, most published unemployment rates are recorded open unemployment. People's attitude on this varies from country to country. While this may be high in developed countries and where government is committed to resolving unemployment problems, it is likely to be very low in countries with the opposite attributes. Okafor (10), pointed out the problem arising from the concept of labour force. In Nigeria, people below the age of 15 years and those above the age of 55, who are actively engaged in economic activities, are excluded from labour statistics surveys. Contrary to the Zimbabwe economy, where people with at least 15 years are included in labour statistics



ISSN 2076-9202

surveys (11). These factors have the result in underestimation or overestimation of unemployment thereby making international comparison very difficult. Furthermore, factors such as the preponderance of full housewives (but who are willing to be engaged in paid job) and unpaid family workers also contribute significantly to the underestimation of unemployment.

Frictional unemployment may be regarded as subset of structural unemployment, mainly reflecting temporary unemployment spells as a result of job search and matching difficulties in connection with quits, new entries to the labour market, and job separation because of employers' dissatisfaction with the individuals' workers (12). Ordinarily, this kind of unemployment does not usually pose much threat to individuals' welfare, as it is temporary in nature. However, the situation in Zimbabwe is that frictional unemployment grows into long-term unemployment and thereby resulting into a stable state of unemployment.

Similarly, Abachi (13) studied the trade-off between unemployment and inflation in Nigeria using a trade-off model. His studies revealed that there is no trade-off between inflation and unemployment. Rather, the estimates established a non-linear curve that slopes upwards. Also, his findings showed that causality existed between inflation and unemployment, which implies that any attempt to control inflation results to the aggravation of unemployment and vice-versa.

In another study, Sanda (14) used a sample of 360 firms in Kano and its environs to examine whether or not, in comparison to large firms, small firms are relatively better at creation of employment opportunities. The results were positive in that small firms were found to be relatively better, and the conclusion they derived was that a policy that gives special preference to small firms is justified. Even though unemployment is painful to those who have no source of income, reducing unemployment is not costless. In the short-run, a reduction in unemployment may come at the expense of a higher rate of inflation, especially if the economy is close to full capacity, where resources are almost fully employed (15).

In Zimbabwe, economic development is measured in terms of factors such as unemployment and inflation. These two variables are considered as important economic indicators, with unemployment rate considered as one of the macroeconomic factor that is used to measure whether the general welfare of economies citizens is being realised. In fact, high inflation is coupled with increased price variability and at times can lead to the departures of investors. The reduction of country's international competitiveness may also be due to inflation which directly make country's exports relatively expensive.



ISSN 2076-9202

The current theory that underpins unemployment and inflation relationship is that of the Phillips Curve (16), which entails that unemployment is inversely related to inflation in the short-run and that in the long run, a change in inflation does not affect unemployment. This study, therefore, determine the causal relationship between inflation and unemployment in the Zimbabwe context.

## MATERIALS AND METHOD

This section explores the econometric methodology applied in the study to determine the causal relationship between inflation and unemployment in Zimbabwe. The study uses secondary yearly data for only two variables, namely, inflation and unemployment. Twenty-eight observations were considered since the period under study covers from 1990 to 2017. The data was collected from International Monetary Fund (IMF) Data Base. In analysing the data Granger Causality Test was used. The test of the explanatory parameters was carried out using the student T-test which determines the strength of the relationship between the independent variables in the model. It ascertains if each estimated parameters is individually significantly different from zero. Based on the theoretical framework, the model used on this study could be represented mathematically as:

$$INFLAT_t = \beta 1 UNEMP_{t-1} + \beta 2 INFLAT_{t-j} + U1t$$

$$UNEMP_t = \beta 3 INFLAT_{t-1} + \beta 4 UNEMP_{t-j} + U2t \quad \ldots\ldots (1)$$

Where:

INFLAT = Inflation Rate

UNEMP = Unemployment Rate

Where $\beta 1$, $\beta 2$, $\beta 3$ and $\beta 4$ after the coefficients of the explanatory variable and its lagged terms.

## DATA ANALYSIS AND INTERPRETATION OF RESULTS

This section focuses on the empirical estimation, presentation and economic interpretation of the regression results carried out using the methodology highlighted in the previous section.



ISSN 2076-9202

## Preliminary Tests

**Table:1 Descriptive Statistics**

| | UNEMP | INFLAT |
|---|---|---|
| **Mean** | 5.457143 | 3.200000 |
| **Median** | 5.400000 | -0.600000 |
| **Maximum** | 6.900000 | 157.0000 |
| **Minimum** | 4.200000 | -72.70000 |
| **Std. Dev** | 0.615497 | 42.51694 |
| **Skewness** | 0.270341 | 2.145071 |
| **Kurtosis** | 2.932562 | 8.807419 |
| **Jarque-Bera**<br>**Probability** | 0.346367<br>0.840983 | 60.82001<br>0.000000 |
| **Observations** | 28 | 28 |

Table 1 shows descriptive statistics of the dependant and explanatory variable used in the study for the period 1990 to 2017. Classical linear regression requires that the residuals be normally distributed and judging by the probability values of the Jarque-Bera, INFLAT residuals do not follow a normal distributed therefore, the test for correlation among the variables can be conducted.

## Correlation Test

The correlation results are presented below are presented in Table 2 below,

**Table 2: Correlation Test Results**

| | UNEMP | INFLAT |
|---|---|---|
| UNEMP | 1.000000 | -0.2632175 |
| INFLAT | -0.2632175 | 1.000000 |

In this study there is weak multi-collinearity among variables as reflected by the coefficient of less than 0.8. The correlation tests show a negative relationship between the two macro-economic variables under study. Having done the correlation test, stationary test is conducted and results are depicted in Table 3 below.



*ISSN 2076-9202*

### Stationarity Test Results

The stationarity tests of the data used in this study were conducted using Augmented Dickey-Fuller test and the results are shown below:

**Table 3: Unit Root Test**

| Variable | t-ADF Statistic | Critical 1% | Critical 5% | Critical 10% | Conclusion |
|---|---|---|---|---|---|
| **INFLAT** | -7.196901 | -3.699871 | -2.976263 | -2.627420** | 1(0) |
| **UNEMP** | -3.204241 | -3.699871 | -2.976263 | -2.627420** | 1(0) |

*, ** indicate significance at 1% and 10% respectively

The results from the ADF test became stationary at level. The next stage involves testing the existence of the cointegration relationship among the variable using Johansen Cointegration Test. Table 4 below presents the cointegration test results.

### Cointegration Test

The cointegration tests were conducted using Johansen Cointegration Test and the results are shown below:

**Table 4: Johansen Cointegration Test Results**

| Hypothesised No. of CE (s) | Eigen Value | Trace Statistic | 5% Critical Value | Prob.** |
|---|---|---|---|---|
| None* | 0.50052 | 24.43364 | 15.49471 | 0.0017 |
| At most 1 | 0.217769 | 6.385720 | 3.841466 | 0.0115 |

*Denotes rejection of the hypothesis at the 5% (1%) significance level.

The hypothesis of no cointegration is rejected suggesting that there exists a long-run relationship between inflation and unemployment. Table 5 exhibits results for estimated Granger Causality Test.

### Granger Causality Test Results

Granger Causality test is undertaken to determine the direction of influence between unemployment and inflation in Zimbabwe and the results are shown below.



ISSN 2076-9202

**Table 4: Granger Causality Test**

| Country | Null Hypothesis | Source of Causation | |
|---|---|---|---|
| | | Long-Run | |
| | | F-Statistic | |
| | | *ΔINFLAT* | *ΔUNEMP* |
| **Zimbabwe** | INFLAT does not cause UNEMP | 1.432 (0.2716) | |
| | UNEMP does not cause INFLAT | | 3.656 (0.028)* |

*Notes: The lag lengths are selected using Akaike's information criterion. The numbers in parentheses are p-values. * Means that the null hypothesis of no causation is rejected at the 5% level.*

The results show that Unemployment granger causes Inflation in Zimbabwe in the long-run as indicated by a positive co-efficient of 3.656 and a probability value of 0.028, making it statistically significant.

## CONCLUSION AND POLICY RECOMMENDATIONS

The causality between unemployment and inflation poses a problem for policy makers. Since unemployment granger cause inflation, inflation rate can therefore be reduced by reducing unemployment. Therefore, basing on the findings of this study, there is great need for constructive and well-specified policy recommendations that will help to ameliorate the situation of unemployment and inflation in Zimbabwe. In addition to the suggested policy prescriptions by Phillips (1958), the following policy recommendations have potential of alleviating the current problems of unemployment and inflation in Zimbabwe.

Government of Zimbabwe should strive to develop the agricultural sector, which has great potentials to increase the supply of farm products and other basic necessities of life. The increased supply will reduce prices and increase in employment generation. To achieve this, various specific agricultural policy measures should be promoted and pursued vigorously. Thumbs up for the Command Agricultural model which the country is currently undertaking.

Massive investments should be carried out in the real sector of the economy, through establishment of job-creating industries. This would help reduce the level of unemployment in the country, increase output, reduce prices of goods and services, and thus, reducing the level of inflation in the economy.



*ISSN 2076-9202*

The free flow of information between employers and employees should be enhanced, through the reduction in the cost of job or employee search by means of job data banks, thus resulting to increased efficiency in the labour market. Similarly, training and educational programmes should be increased and geared towards innovations and productivity, thereby, reducing the rate of unemployment in the economy.

It is, also recommended strongly that special attention be given to policy implementation. In this regard, the government of Zimbabwe should set up a policy implementation body or committee in the office of the president for the purpose of monitoring government policies and ensuring that they are implemented according to prescriptions, thus eliminating problems relating to policy inconsistencies, which impacts negatively on electorate confidence on the government.

A well thought model should be designed for the mining sector, especially in the Diamond mining. The model should clearly spell the procedures to be followed, from the extraction to the selling of the mineral, with the government taking a leading role from both the extraction and the selling, rather than leaving private industries to manage the most sought resource. This would enhance in the accountability of the mineral and the ultimate proceeds, thus creating employment.

## REFERENCES

[1] IMF. (2017). Statement at the Conclusion of an IMF Staff Mission to Zimbabwe. Press Release 09/249, http://www.imf.org/external/np/sec/pr/2009/pr09249.

[2] Makuyana G, Munongo S, and Zivanomoyo, J (2011). Does the Zimbabwean exchange rate follow a random walk: January 2000 - December 2008? Journal of Economics and International Finance Vol. 3(2), pp.121-124, February 2011.

[3] Economic Outlook (2018).

[4] Resurreccion P, F. (2014). 'Linking unemployment to inflation and economic growth in the Philippines': Asian Journal of Economic Modelling 2(4): 156-168.

[5] Oliver, H. (2010) 'US Money Demand, Monetary Overhang, and Inflation Prediction' International Network for Economic Research working paper no. 2010.4

[6] Forder, J. (2014). 'Macroeconomics and the Phillips Curve Myth'. Oxford University Press. ISBN 978-0-19-968365-9.

[7] Balami, G. (2006). 'Innovation and Growth in Developing Countries', Journal of Development Economics, July. Growth in Developing Countries, Journal of Economic Literature, 33(3), September Growth in the Global Economy (Cambridge, Mass: MIT Press).



*ISSN 2076-9202*

[8] World Bank (1998). 'World Development Indicators', Washington, D.C. The World Bank.

[9] Zivanomoyo, J and Mukoka S. (2015). 'An empirical Analysis of the Impact of Unemployment on Economic Growth in Zimbabwe'. Society for Science and Education, United Kingdom.

[10] Okafor, E. E (2011). 'Youth Unemployment and Implications for Stability of Democracy in Nigeria. JSDA, 13(1)'. http://www.jsdafrica.com/Jsda/V13No1.

[11] ILO (1998). 'The new institutional economic, approach world development'. International Labour Organisation. World Labour Report, Geneva, ILO Office.

[12] Lindbeck, 1999. Unemployment-Structural Paper. Institute of International Economics Studies: S-10691 Sweden.

[13] Abachi (1998). Unemployment and inflation in Nigeria. www.coursehero.com › Bahauddin Zakariya university.

[14] Sanda, R. (2006). Nigeria: 'Youth Unemployment, Poverty - a Time Bomb for Country'. Leadership, Wednesday, 27 August

[15] Hargreaves-Heap S.P. (1980). 'Choosing the Wrong Natural Rate: Accelerating Inflation or Decelerating Employment and Growth', Economic Journal, 90, 611-620.

[16] Phillips A, W. (1958). 'The Relation between Unemployment and the Rate of Change of Money Wage Rates in the United Kingdom 1861–1957', referring to unemployment and the 'change of money wage rates'.



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# WHAT ORGANIZATION/HR EXPECTING FROM YOUR CURRICULUM VITAE AND IMPORTANCE PRACTICES IN SRILANKA

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## Introduction

Nowadays peoples complete their education very successfully but the difficulty arise when people start to find jobs because lack of awareness in career opportunities and job tools using for recruitment and applicant actually do not know what HR expecting from the position that they recruit. Employees are the most important resources for a company. Every organization clearly mentioned what they expecting from employee through the Job description and Job specification with an Advertisement. the people or Employees are major property who work in order to achieve the goals of the organisation Be it sales, HR Accounting, Finance legal or any other department in a company, selecting Most suitable person or the right person with the correct skill sets with right post is the biggest challenge. As HR/Personnel Managers, we often find ourselves having to go through stacks of CVs on a daily basis. HR managers or Employer play major role absorbed best CV from the application pool. AS tempting as it is to simply skim through them, this process should not be taken lightly because somewhere in that stack, there may be the perfect candidate for the position you need to fill. The employer Ultimate Goal will be finding best suitable candidate to his organization.HR shortlisted their employees based on CV. In Sri Lanka private organization recruiting employees-based n the CV But Public sector not using or comparatively very less in usage of CV based Recruitment. The aim of this Essay to understanding the CurriculumViate Concepts and what HR Expecting from your curriculum vitae.in addition with that Identify how Sri Lankan organization recruiting staff based on the CV. End of this Essay people able to understand and preparation cv and the organization HR expectation from CV in further they will capable to gain the knowledge CV Staffing practices in Sri Lanka.This article evaluate based on previous papers and internet sources.

Highlight keywords-Recruitment, Human Resource Manager, Shortlisting, Selection, CV.

In Srilanka graduates or job seekers get know the practices that involving the recruitment based on the CV but before that How to prepare cv is very important.CV is a document or file that provides an employer with a detailed statement of a job applicant's prior Job role work experience, professional or



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academic education Achievements, and Distinction/accomplishments. The CV often supplies an Employment or Hire objective to find or get suitable job .which consists of a summary of skills, knowledge, and potential contributions; a summary of personal data(Name,ID,Address,Gender), professional, and humanitarian volunteer work, a list of certifications, the mention of any additional relevant Fieldwork/coursework CV book has to stand out from the crowd … has to attract with its good sense, its insight and its practicality. This one does. – The Daily Express First of all the meaning of Curriculum Vitae (CV) is a short and brief written explanation of the major achievements and contributions of your life. It comprises key information with regard to yourself, your academic and professional education, your employment experience and other important events.

Employers can receive many CVs for a job which has been advertised so it is important to impression to attract their attention. Most people do not spend as much time on their CV as they should, so if you write a professional, high quality CV you will stand out from the rest.

At the, present Actual fact is the organization or Employer Does not know anything about physically until you faced first interview so you cannot be impressed your organization the place itself Before that but Organization call for interview based on your cv. Therefore, your cv should be impressive after that only you can attract your employer in your interview if you short listed only. In beginning CV is determined factor your career so awareness in CV is very important in present world. It helps to have a step-by-step process to go through, both in terms of the time it takes, the level of frustration when you see that stack sitting on your desk, and the very strong urge to procrastinate. But as a job seeker we need to do some active preparation for your career. The best, first we have to concern about CV.

A perfect cv goes a long way. Your CV is often the first impression a potential employer has of you. For this reason, it is often referred to as one of the most crucial steps taken during a job search.

Why CV is important

- As a HR they expecting that Without a positive initial impression, a prospective employer or organization is likely to stop considering you as a fit candidate for the job on offer and move on to other candidates who have provided better CV.

- HR Expecting impressive document that Think of a CV as a tool for marketing yourself. It's more than just a document: It outlines your background, your skills, and your education so that a potential employer is quickly and easily able to see how your individual experiences can contribute to a company's success.



ISSN 2076-9202

Your CV is the first chance you get to make a good impression on a potential employer. A top-quality CV will considerably boost your chance of getting a face-to-face interview, so it is worth spending time and effort on the content and presentation. It will make all the difference in obtaining the position you want. You must therefore highlight your skills, expertise and value.

Make sure that you are summarising and accurate. Your CV should not, generally, be longer than two pages, so make sure that you tailor it specifically to the job you are applying for and include the skills, qualifications and experience which are most suited to the job. An employer will want to find the following information in your CV

**Job seeker/Personal details** – Include your name and address, a phone number, and your email address. You may also add your nationality, gender and date of birth if you wish, but they are not obligatory.

**Personal profile** – This is elective may be optional, but it can be very effective in summarising your areas of expertise and characteristics. It is good to include your enthusiasm about working as academic or professional and what motivates you about the industry. Use keywords and keep it brief and concise.

**Key/Significant Skills** – Include any skills you have learnt or expertise such as secretarial or IT skills. Explain what you think your personal skills are.

**Employment history** – Start with your current or last employer and work backwards. You should include the dates of employment, your job title, name of employer, nature of business, responsibilities, duties and achievements. Try not to leave gaps in your employment history; if you do, it is advisable to account for such times.

**Education and qualifications** – Write in chronological order a brief list of school, college and university qualifications, such as O-levels, A levels, etc., together with the grades you obtained. Then list any further qualifications you have obtained, together with the names of the awarding bodies. When you include the Degree/ Diploma, make sure that you mention the units you covered and that you studied through The Institute of Universities and colleges. If you are currently studying for a qualification, mention it together with any results achieved so far.

**Interests** – This is optional but gives you a chance to portray something about your personality. Keep it simple, mention what you do in your free time and note any achievements.

**Special Note-** You can attach any professional member or ID, Participation of workshop, Publication, Article, Award you have received and achievements.



*ISSN 2076-9202*

**References** – There is no need to write the details of your referees on your CV. Simply state that they are available on request, but make sure that you know who your referees are and that you have asked their permission to use them. IN normal practices family relationship not allowing to put references. When preparing CV below factor may concern

- Structure/CV Layout- The most important aspect for any cv is the layout. CVs must be neatly designed so that it gets noticed. The academic qualifications, past work experience, achievements, extracurricular rewards etc all must be highlighted separately. If the CV is shabby and unstructured, there are high chances it would get rejected even without notice.
- Perfection writing/Language- Resumes with incorrect spellings and grammatical errors are a big turn off for companies. The CV is the face of a potential candidate and hence it has to be very accurate in terms of language and grammar.
- Consistently Strong academic record- Companies mostly prefer a candidate who has been consistent in scoring well in academics. The reason being that a company wants consistency in the attitude that reflects from a confident CV.
- Application/Relevance of Work Knowledge- One of the most important aspect would be previous work experience. The more relevant the experience would be, more would be the chances of being shortlisted. Companies would definitely want a resource who has worked in a similar area before. This would also make sure that the learning period and training required would also be less.
- Positions of responsibility- Companies give a lot of importance to candidates who have handled a position of responsibility. The reason is that the company wants to nurture people who can steadily grow in their environment, handle a team and then can be a part of a company's succession plan.
- Distinction/Awards and achievements- A student with good marks and good awards will always be better than someone with only excellent academics. Companies always look out for all-rounders who have a sound overall personality. They should not be book worms but should be dynamic in all activities which are given to them.
- Size/ Length of a CV- Every HR manager has to work endlessly going through multiple applications. Single page CVs with crisp information provided are considered to be the best. If the CVs are two or more pages, the HR loses interest as not only is there paucity of time but also important credentials might get missed.

  There are a lot of applications that HR managers receive for any vacancy available Hence it is always a major task to shortlist candidates for an interview. And when a lot of



*ISSN 2076-9202*

applications apply for a position or a job opening, most of the candidates are simply rejected basis their CVs. Therefore, it is critical to have a good strong crisp CV.

HR adopting practices in CV shortlisting in following way. (The Curriculum Vitae Handbook, by Rebecca Anthony and Gerald Roe)

1. A first reading of the job candidate's CV allows for a first pre-selection of the candidates. It avoids conducting useless interviews when the qualifications of a candidate clearly do not meet the basic job requirements (i.e. when the candidate does not dispose of all the necessary critical skills or experience).
2. The candidate's "longevity" in the different positions he/she has occupied also provides some useful information. Very frequent changes of activity can indeed give the impression of a certain professional instability.
3. Gaining an idea – going beyond mere technical skills – of the interests and motivations of the candidate in relation to the position and/or the organization. The visual aspect of the statements, its writing (syntax, orthography, etc.) and structure will also give an indication on some of the candidate's skills.
4. . The references mentioned in a CV may be used at the end of the selection process in order to decide between two candidates who offer equivalent profiles. They can thus prove useful for the recruiter in many respects. Collecting complementary information on the candidate's proven skills and behaviour.
5. CV Obtaining information relative to the person's social interactions and everyday life.

Here as an applicant or Candidate or job seekers when posting cv to job market following factor should be considered. (The CV Book: Your definitive guide to writing the perfect CV Paperback – 30 Jul 2009). **PROFESSIONAL AFFILIATIONS:** proof documentation details should be attached in your interview file. If you belong to professional organizations (either as a student or regular member) or hold professional certificates or licenses, a section on professional affiliations may be useful. Include membership, offices held, and work done for the organization. Stay or Keep your CV focused-Make sure your CV is focused on a specific role.CV Should be differentiate based on career ambition or goal. If the person need to become good at academic in future then the person should prepare academic CV based on that motive of ambition. A lot of people have multiple skills and experience and try to show all of these on their CVs, leaving recruiters uncertain what they do. If you are a project manager and a business analyst and you are interested in both types of roles then consider creating two versions of your CV with one focused on project management and the other on business analysis. Do not be multiple applicant.CV should vary based on job requirement. Consider changing your job title-Some companies use weird and



*ISSN 2076-9202*

wonderful job titles that make perfect sense internally but don't mean much to the outside world. So, if you are an assistant lecturer when you actually manage your academy, consider changing the job title on your CV to academic which accurately describes what you do and is a title that recruiters might actually search for. Equally if you are a "client relationship manager" when actually you manage sales then consider changing your CV job title to sales manager. Why? Well recruiters often search the internet and job boards for people by job title so if you have an unusual job title your CV may not be picked up in those searches. Don't send out the same old CV for every job.

**The major important point cv should be genuine not be fake information.** Don't lie on your CV; untrue credentials can land you in a soup (The writer is Director, Start-up Hiring, QuezX.com). It's a sad fact that most of the job hunters I speak to who claim to have applied for 50 jobs and had no response admit to having sent out the same CV for every job. This just doesn't make sense. You must customise your CV for every job application. Check the job advertisement (or even better, the more detailed job specification) and see what skills and experience are required. Pay particular attention to the "Essential Skills and Experience" and be sure to include reference to each one in your CV. Keep it short. Keep it short and sweet. I often see CVs of five or more pages (the record so far is 25 pages). Unfortunately, recruiters simply don't have time to read very lengthy CVs so try to get everything on to two pages or three pages at the most. If you have had a lot of jobs (perhaps as a contractor or consultant) then consider referring to your early career for all jobs from more than 10 years ago. Just put the dates, job title and the name of your employer but leave out the details.

## Conclusion

CV with HR in any organization is a serious business as the success of any organization or efficiency in selecting right candidate and awareness in CV also important in Sri Lanka even some rural place does not about CV and its important, According to the exercises (Ezeali and Esiagu, 2010). Bohlander, Snell & Sherman (2001delivery depends on the quality of its workforce who was recruited into the organization through recruitment and selection reported that it is important for managers to understand the objectives, policies and practices used for selection.

Creating first impression always important that why the quote said that first impression should be a best impression.CV is the first tool play role of indication of your identity and introduce yourself in organization. Spending some time improving your CV can dramatically increase your chances of getting short-listed for interviews. All you have to do is to use some of the tips described above. If you do, you should see an increase in positive responses from your job applications. If you don't have time to make all of the adjustments above, start by making sure that your CV is error free and that it is customised for the



*ISSN 2076-9202*

job you are applying for. Those two simple changes should increase your success rate. Look at your candidates' CV can tell you a lot about whether or not they are a good fit for the role. For example, if you're looking for a Manager and their profile is very weak, they might not be the person for the job. You can also often see what groups they are active in, what companies they follow, and who their connections are to get a better idea of how fitting they are for the role.

The screening process is not easy, and it's always difficult knowing that you might just skip over that perfect candidate by mistake or just because you weren't paying attention. Following a step-by-step guideline will help you make the process more efficient and make sure you don't miss an important CV.

## REFERENCES


1. Bright, J.E.H. and Hutton, S. (2000). 'The impact of competences statements on resumes for short-listing decisions', International Journal of Selection and Assessment, vol.8, pp.41-53
2. Robertson, I.T. and Smith, M. (2001). 'Personnel Selection', Journal of Occupational and Organizational Psychology, vol.74. no.4, pp.441-72
3. Tversky, A. and Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. Science, 185, 1124-1130.
4. *Source: BurningGlass.com (Analysis of 310,204 human resources job postings, Feb. 01, 2015 – Jan. 31, 2016.)
5. Knockout CV (UK Professional Business Management/Business) Paperback – 16 Sep 2013John Lees (Author)
6. The CV Book: Your definitive guide to writing the perfect CV 1st Edition by James Innes (Author)
7. The CV Book: Your Definitive Guide to Writing The Perfect CV Author- JAMES INNES'S BOOKS
8. The Complete Idiot's Guide to the Perfect Resume- Alpha Books, 2002 - Business & Economics - 342 pages.
9. How to Get a Job You'll Love: A Practical Guide to Unlocking Your Talents and Finding Your Ideal Career- John Lees, McGraw-Hill, 2007 - Career changes - 271 pages
10. The Resume.Com Guide to Writing Unbeatable Resumes, Rose Curtis, Warren Simons McGraw Hill Professional, Apr 19, 2004 - Business & Economics - 253 pages.
11. 101 Best Resumes for Grads Jay A. Block, Michael Betrus McGraw Hill Professional, 2002 - Business & Economics - 233 pages.
12. The Complete Idiot's Guide to the Perfect Resume, 5th Edition, Susan Ireland DK Publishing, Jan 5, 2010 - Business & Economics - 304 pages.
13. 202 Great Resumes, Jay A. Block, Michael Betrus McGraw Hill Professional, Apr 21, 2004 - Business & Economics - 304 pages.
14. 2500 Keywords to Get You Hired, Jay A. Block, Michael Betrus McGraw Hill Professional, Dec 22, 2002 - Business & Economics - 224 pages.
15. (Corinne Mills Managing Director of Personal Career Management).




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# THE ECONOMIC IMPLICATION OF FRAUD IN NIGERIA

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**ABSTRACT**
This research examined frauds in the banking industries in Nigeria. The essence of these is that if these frauds are not detected and worked upon, it may lead to banks not performing well. This issue is important at this stage because the world is going cashless and ATM is one of the main tools for cashless banking. Questionnaire and oral interview were used for the study. The study also concludes that since the issue of fraud cannot be wiped out completely, it can as well be minimized to as low as reasonably practicable by ensuring that the proper thing is done at all time.

**Key words:** Corruption, Bribe, Crime, Fraud, Infrastructure

## I. Introduction

Fraud is a Global phenomenon that has been in existence for long and increases every day by day. Fraud is a deliberate act that causes a business or economy to suffer damages, often in the form of monetary losses. Fraud is rampant in both developed and developing countries and as well varies across places in its magnitude, its sources, the way it manifests itself and its effect on administrative performance and development. Fraud can be seen as a Deceit or Trickery deliberately practiced in order to gain some advantage dishonesty. Oxford Advanced learner's dictionary defined fraud as the crime of cheating somebody in order to get money or goods illegally.

It is also a person who pretends to have qualities, abilities etc. that they do not really have in order to cheat other people.

Over the century, commercial banks have contributed to the development of the Nigeria economy. Commercial banks are the institutions that accept deposits payable on demand and organize loans. For the economy of a nation to develop, the banking sectors a very import role to play.

Banks acts as financial intermediaries between investors. For the purpose of this study, the banks referred to consists of commercial banks merchant banks, cooperative banks, community banks and other financial rendering banking services.

Commercial banks are seen as financial institution whose services hinge critically on a trusted relationship between it and its customers.

Banks and no-bank financial institution jointly constituting the financial industrial of any economy however, the banking system comprises the major corner stone of an economy. For any economy to develop and grow, the finance sector must be strong, effective and efficient.



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The existence of an effective banking industry is a panacea to growing any economy. The pivot of any economic development is the financial sector through its role in intermediating funds from the surplus units to deficit units. This also stimulates investment, economic growth and employment as well as international trade and payment.

Bank failures are as old a banking industry itself. Despite the significant roles it plays in economic development, its failures are becoming well pronounced. The dictionary of economics and commerce confirmed that 200 banks failed in England between 1815 and 1850 just a period of 35 years, one of the reasons attributed to this failure is fraud.

## II. Literature review

There have an extensive studies conducted in many countries on fraud and its effect on bank performance. Adewumi (2007) in his explanation of bank fraud identity socio-economic lapse in society such as misplacement of societal values, the unquestioning attitude of society toward the source of wealth, the rising societal expectations from bank staff and subsequent desire to staff to live up to such explanations as contributory factors of fraud.

In a different study, Otusanya (2008) carried a study on the role bank CEO in the perpetration of corporate executive frauds in the Nigeria Banking sector. The study reveals that recent banking crises in Nigeria have exposed the activities of bank executives in corruption and fraudulent practices using institutional anomie theory called American dream theory, whereby the pursuit of monetary success has come to dominate society.

Idowu (2009) did a research on the means of minimizing the incidence of fraud in Nigeria Banking industry, findings of the study revealed that, so many factors contributed to the incidence of fraud in banks amongst which are poor management of policies and procedures, inadequate working conditions, bank staff amongst which are poor management. Adepoju and Alhassan (2010) opined that Bank customers have come to depend on the trust the automatic teller machine (ATM) frauds in the country. Managing the risks associated with ATM fraud as well as diminishing its impact is important. Amindele (2010) conducted a research on the challenges of automated teller machine (ATM) usage and fraud occurrence in Nigeria banking industry" the study posits that lack of adequate training, communication gap, and poor leadership skills were the greatest cause of fraud in banks. He advised that adequate internal control mechanism be put in place and that workers satisfaction and comfort be taking care of.

Onurah and Ebimobowei (2011) investigate fraudulent activities and forensic accounting in Nigeria. The study found that there is need for the banks in Nigeria to adopt more proactive measures such as the use of forensic accounting techniques in banks.

Abdulrasheed, Babaitu and Yinusa (2001) examination the impact of fraud on bank performance in Nigeria. Result of the study shows that, there is a significant relation between banks profit and total amount of funds involved in fraud.

Finally, kanu and Okorafor (2013) did a work on the nature, extent and economic impact of fraud on bank deposit in Nigeria using descriptive and inference statistics. The study revealed that there is a positive significant relationship between bank deposit and fraud in Nigeria banking industry.

Institutional factors or causes are those that can be traced to internet environment of the financial



ISSN 2076-9202

institutions. They are as follows:

**INADEQUATE INFRASTRUACTURE:** Poor communication systems and power failure result to ATM bank fraud which encourages the perpetration of frauds in banks.

**NATURURE OF SERVICE:** Fraud may be caused where documents of value and liquid assets are exposed to an undisciplined staff or unauthorized person(s) like customer(s) in the bank.

**POOR MANAGEMENT.** This comes in form of inadequate supervision. A junior staff with fraudulent tendencies that is not adequately supervision would get the impression that the environment is safe for the perpetration of fraud especially ATM.

**POOR SECURITY ARRANGEMENT:** Bank security arrangement for valuable, it is easy and weak, poor and vulnerable, it is easy for fraudster to have their ways underrated in the bank.

**POOR SALARIES**: Employees that are poorly paid are often tempted to fraudulently convent some of the customer\s money to their own use in other to meet their personal and social needs. This temptation is stronger on bank employees who are on daily basis have to deal with cash and hear cash instruments.

**FRUSTRATION:** this is a place where staff feels short – changes in terms of promotion and other financial reward, they became frustrated and such frustration could lead to fraud as much as such employee would attempt to compensate himself in his own way and it is an indication of weakness in bank internal control system.

Environmental Factors: these are those factors that can be traced to the banks immediate and remote environment (Nweze 2008)

**Unemployment and high level of poverty in Nigeria:** Nigeria is one of the richest economics in sub-Sahara African and indeed the world both in human and natural resources (oil) but 80% of the Nigeria youths especially university graduates are unemployed. Most of the politicians squirt away the looted funds in foreign bank without been punished by EFCC. This causes employment and lack of infrastructure which is not good for a developing country like ours.

**Fear of negative publicity:** Many financial institutions fail to report fraud cases to the appropriate authorities. They believe that doing so will give unnecessary negative publicity about the bank and it is a chance for fraudsters to thrive because it is a great challenge to a researcher as regard to data collection.

**Societal value.** When the possession of weakness determines the reputation ascribed to a person that society is bound to witness unnecessary competition for acquisition of wealth the desire to be with the high and mighty caliber of the society, extreme want that is often characterized by need and cultivation of a life too expensive for the legitimate income of the individual which to a large extent encourages banks fraud.

## III. Methodology

This research study follows a description research method. It attempts to look at the economic implication of bank fraud in Nigeria Banking system using Enterprise bank Plc.

The research instruments used for this research study were questionnaires, and personal interviews. Data collections for research look two forms. Both primary and secondary data were gathered and used to accomplish this research work. The primary data was obtained through personal interviews and response



ISSN 2076-9202

given by respondents to the questions asked in the research questionnaire. The secondary data was gathered from various textbooks journals, newspapers and magazines.

The total population of the research study was made up of 35 staffs obtained through random sampling from the three banks used. The population included the managers of inventories, production, sales finance and accounting departments of the banks.

Out of a total population of 35 employees chosen for the research, a simple size of 32 staffs was taken to consummate the research work.

## IV. Result and discussion

This section presents the results of the data analysis.

Table1: Distribution of response on personal data of respondents.

SECTION A

| | Personal data | Number | Percentage (%) |
|---|---|---|---|
| 1. | Sex: Male | 24 | 75 |
| | Female | 8 | 25 |
| 2. | Age: | | |
| | 20 - 35 years | 10 | 31.25 |
| | 35 – 45 years | 17 | 53.13 |
| | 45 years and above | 5 | 15.63 |
| 3. | Marital Status: Single | 10 | 31.25 |
| | Married | 22 | 68.75 |
| 4. | Work Experience: Less than 1 year | 6 | 18.75 |
| | 1 – 4 years | 20 | 62.50 |
| | 4 years and above | 6 | 18.78 |

SECTION B

| | Causes of Fraud | Frequencies | Percentage |
|---|---|---|---|
| | Poor internal control | 12 | 37.5% |
| | Poor hiring practices | 8 | 25% |
| | Lack of accountability | 6 | 18.8% |
| | Poor ethical values | 4 | 125% |
| | Poor physical security | 1 | 3.1% |
| | Others | 1 | 3.1% |



ISSN 2076-9202

| | | | |
|---|---|---|---|
| | TOTAL | 32 | 100 |

SOURCE: FIELD SURVEY 2018

The table above shows that from the 32 respondents, 24(75%) were male while 8(25%) respondents were female. This is an indication that males dominate the operation of Heritage bank in Nigeria. The tale also indicates that respondents between the ages of 20 – 25years were 10(31.25%) while those between the ages of 35 – 45years were 17(53.13%), while ages between 45years and above were 5(15.63%).

From the table (causes of fraud) 12(37.5%) were as a result of poor internal control, 8(25%) were as a result of poor hiring process, 6(18.8%) were as a result of lack of accountability, 4(12.5%) were as a result of poor ethical values, 1(3.1%) were as a result of poor physical security, and 1(3.1%) were classified as others.

**TESTING OF THE HYPOTHESIS**

Ho: Poor internal control, poor hiring practices lack of accountability, poor ethical values and poor physical security are the major cause of fraud in Nigerian Banks.

Ha: The problems stated in Ho are not the causes of fraud in Nigerian Banks in reducing frauds in Nigerian Banks.

Using the contingency chi-square test, we therefore reject the null hypothesis since $X^2_c > X^2_t$ 0.05 i.e. 32.70 > 9.49 and accept the alternative hypothesis ($H_i$) at 0.95 level of significance.

$X^2_c$ = computed value and $X^2_t$ 0.05 = table value

The policy implication of this decision is that Poor internal control; poor hiring practices lack of accountability, poor ethical values and poor physical security are the major cause of fraud in Nigerian Banks.

## V. Conclusion

This paper has attempted to highlight the incidence and magnitude of fraud and some of its negative impact on the banking sector in Nigeria. Fraud inflicts severe financial difficulty on bank and their customers. It also lead to the depletion of shareholder's funds and banks' capital base as well as loss of customers' money and confidence in banks. Such losses may be absorbed by the profits for the affected trading period and this consequently reduces the dividend available to shareholders. Losses from fraud which are absorbed by the equity and advances for profitable operations. In extreme cases, cases, rampant and large incident of fraud could lead to bank failure.

The loss in funds affected the economy. It reduced the amount available to small or medium scale firms for developing the economy. The costs of fraud are always passed on the society in the form of increased customer inconvenience, opportunity costs, unnecessary high prices of goods and services and lack of infrastructure.



ISSN 2076-9202

Fraud can increase the operating cost of a bank because of the added cost of installing the necessary machinery for its provision, detection and protection of assets. Moreover, devoting valuable time to safeguarding its asset from fraudulent men distracts management. This unproductive diversion of resources always reduces output and low profits which in turn could retard the growth of the bank.

## Reference

[1] Abudlrasheed, S, Babaetu, D.J and Yinusa, G (2012). *Fraud and its*

*implications for bank performance in Nigeria*. International Journal of Asia Social Science.

[2] Adepoju, A, and Alhassa G. (2010). *Challenges of automated teller machine (ATM) usage and fraud occurrence in Nigeria*. A case study of selected bans in mina metropolis. Journal of internet banking and commerce (JIBC 1592).

[3] Adewumi W, (2007). *Fraud in banks, Nigeria institute of bankers*. Land marks publication Lagos.

[4] Akindele R.I (2011). *Fraud as a negative catalyst in the Nigeria baking*.Industry Journal of Emerging trends in economics and management science (JETEMS): Beson and Edward fraud protection series (Volumes 1-11) B and E publishers Lagos.

[5] Idowu A. (2009). *An assessment of fraud and its management in Nigeria commercial banks*. European journal of social science 10 (4) 62 – 640)

[6] Kanu S. I and Okoroafor, E.O (2013). *The Nature, Extent and Economic impact of fraud on bank deposit in Nigeria*. Interdisciplinary journal of contemporary research in business, 4(9) 253 – 264

[7] Nweze C. (2008). *Quality and international control challenges in contemporary Nigeria banking*. Zenith economic quarterly, zenith bank plc. 3(2) 23 – 28

[8] Onuorah S, and Ebimobwel, D (2012) .*Fraudulent activities and forensic accounting services of banks in Port Harcourt, Nigeria.* Asia Journal of Business Management, 4 (2)

[9] Otusanya J.O (2009). *An investigation of corporate Executive fraud by CEOs in the Nigeria banking industry*. A seminar paper presented at the department of accounting faculty of business administration, university of Lagos.



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# DETERMINANTS OF CONSUMER DEMEANORS WITH REGARD TO HALAL FOOD

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**ABSTRACT**
Previous research has shown consumers to be highly aware towards halal food production in Malaysia. However, little research has tried to investigate determinants of consumer demeanors with regard to halal food. The paper presents the results of a survey which was carried out in Malaysia to investigate the formation of consumer demeanors towards halal food production. This study involved 150 Muslim consumer in Malaysia. All respondents completed a set of self-developed questionnaire. The tools for statistical analysis employed in this study were descriptive, and confirmatory factor analysis (CFA) using IBM SPSS 20.0. Results show that Malaysian consumers turned out to be significantly have positive demeanor towards halal foods. The pattern matrix revealed that 17 items were loaded into four determinants; attitude, perceived behavioural control, subjective norm and religious belief. Overall, the present study has given a meaningful information to all consumers about halal food, therefore it is a valuable guideline for them to choose the right food in the market.
**Keywords:** Halal Food, Management, Consumer, behaviour.

## Introduction

The word 'halal' is a specific Arabic word that is defined as allowed or permitted (Khattak, Anwar, Abbas & Ismatullah, 2011). Literally, it means "thing which is permitted, with respect to which no restriction exists, and the doing of which the Law-Giver, Allah, has allowed." (al-Qardawi, 2003), the



*ISSN 2076-9202*

combination of the words "halal" and "food" refer to the permissible food according to Islamic law (Qureshi et al, 2012). Specifically, halal food refer to, "Any food which is not from or do not contain any part of animals forbidden by Islamic law, or animals that are not slaughtered according to Islamic law; does not have any impure substance considered by Islamic law; is not prepared, processed or manufactured using equipment or utensils which are not free from impurities as defined by Islamic law" Trade Description Order (Usage of the Term "Halal" in 1975, (Halal Malaysia Portal, 2011).

Referring to this halal concept definition, it is an obligation for all Muslims to obey this guideline. It has been clearly mentioned in the first paragraph of the introduction, from The Almighty (2: 168), "*O ye people! Eat of what is on earth, Lawful and good*" (QuranicOnline.net, translation of Quran by Abdullah Yusuf Ali). Previous research has shown consumers to be highly aware towards halal food production in Malaysia. However, little research has tried to investigate determinants of consumer demeanors with regard to halal food. The paper presents the results of a survey which was carried out in Malaysia to investigate the formation of consumer demeanors towards halal food production.

**Literature Review**

In investigating the determinants of consumer attitudes toward halal food, theory of planned behaviour (TPB) has become one of the most prominent theory used by numerous academician as a guideline (Bonne, Blacker & Verbeke 2007). The TPB developed by Ajzen (1985) explains how attitude, subjective norms and perceived behaviour control ultimately affect human behaviour. Intention has become the mediator between attitude, subjective norms, perceived behaviour control and human behaviour (Gilholm, Ettema, Selart & Garlin, 1996). In this study, the researcher has imitated ideas written by Nazahah Abd. Rahman and Sutina Junos, (2012) and Alam et al, (2012) which include religious belief as an additional factor that makes halal food consumption predictable. Therefore, there are four main determinants that contributed towards actual behaviour for halal food consumptions; attitude, subjective norm, perceived behaviour control, religious belief and intention as mediator.

Consumer demeanor in halal food refers to the demeanor of an individual towards halal food; whether they find it favourable or unfavourable in consuming halal food (Shah Alam, & Mohamed Sayuti, 2011). In conceptualizing the elements that influence demeanor towards halal food consumption, several characteristics are highlighted, which are health, safety and hygiene (Khalek & Ismail, 2015).

Demeanor towards halal food is a result of judgements made through personal experience or acquired knowledge. From acquired knowledge, people will be able to observe if a particular food is good or not. Fundamentally, Islam in a whole has highlighted the main characteristic of halal food based on Prophet Muhammad's saying;

> *"On the authority of Abu Hurayrah (ra): The Messenger of Allah (صلى الله عليه وسلم) said, "Allah the Almighty is Good and accepts only that which is good. And verily Allah has commanded the believers to do that which He has commanded the Messengers. So the*



ISSN 2076-9202

> *Almighty has said: "O (you) Messengers! Eat of the tayyibat [all kinds of halal (legal) foods], and perform righteous deeds." [23:51] and the Almighty has said: "O you who believe! Eat of the lawful things that We have provided you." [2:172]" Then he (صلى الله عليه وسلم) mentioned [the case] of a man who, having journeyed far, is disheveled and dusty, and who spreads out his hands to the sky saying "O Lord! O Lord!," while his food is haram (unlawful), his drink is haram, his clothing is haram, and he has been nourished with haram, so how can [his supplication] be answered?"* (Muslim)

The above hadith is supported by Quranic verse of Al Maidah, 88; "*This is the guidance of Allah. He giveth that guidance to whom He pleaseth, of His worshippers. If they were to join other gods with Him, all that they did would be vain for them.*". With the explanation by this verse, it has made it clear that halal food is healthy, safe and hygienic. The characteristics laid out by this verse are important to help Muslims in identifying halal food for them to consume.

According to Khalek and Ismail (2015), demeanor is one of the main factors that influences consumers in choosing halal food. They further explain that demeanor in consuming halal food is probably connected to the religious belief as well as the benefits of halal food. In another study done by Khalek in 2014, it has likewise stated that the determinants of halal food consumption imperatively depend on their demeanor . A similar confirmation was also discovered by Shah Alam and Mohamed Sayuti (2011), in their study "Applying the Theory of Planned Behavior (TPB) in halal food purchasing". In a nutshell, the overall statement contributes to the understanding of demeanor as one of the main factors that determines halal food consumption.

**Methodology**

This study employs quantitative research method, using a cross sectional survey techniques via questionnaire. Questionnaire was use as the main instrument to collect primary data from the targeted sample. The questionnaire, consisting of the informed consent letter and two main section namely 1) demographic 2) consumer demeanor. The tools for statistical analysis employed in this study were descriptive, and confirmatory factor analysis (CFA) using IBM SPSS 20.0. This study involved 150 Muslim consumer between 18 to 36 years old in Malaysia.

**Result and Finding**

After the content of the questionnaire was validated by the experts and translated, it is subjected to distribute to 150 respondents. The data were analysed using Exploratory Factor Analysis (EFA) to assess their validity. Total of 150 samples is an adequate number for the purposed of EFA (Pearson & Mundform, 2010). Along the EFA procedure, Principal Component Analysis (PCA) was run to examine the underlying construct in the questionnaire. In order to measure a significant result of PCA, a listed basic assumptions were checked; Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO), Bartlett's Test of Sphericity, anti-image's correlation matrices, and communalities. All the cutoff values for the listed assumption are explained in Table 1. The PCA analysis was performed following fulfillment of all



ISSN 2076-9202

four-listed assumption.

**Table 1:** Cutoff Value for basic assumptions in Principal Component Analysis

| Basic Assumptions | Cutoff Value |
|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) | > 0.6 |
| Bartlett's Test of Sphericity, | < .05 |
| Anti-image's correlation matrices, | > .05 |
| Communalities | > .03 |

**Determinants of consumer demeanor towards Halal Food**

Principal Component Analysis with direct oblimin rotation was run to test 19 items of the halal food predictors. As suggested by Brown (2009), direct oblimin is an appropriate rotation for oblique factors (correlated). After PCA analysis was completed for few times to meet the accepted value, the remaining items suggested were 15. From the result, it revealed that the Kaiser-Meyer-Olkin Measure of Sampling Adequacy achieved satisfactory value of 0.717, which is above the cutoff value of 0.6. Moreover, the Bartlett's Test of Sphericity shows a significant p value, p=.000. The result as shown in Table 3.7.

**Table 2:** KMO and Bartlett's Test (Halal Food Consumption)

| | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .745 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 997.868 |
| | df | 120 |
| | Sig. | .000 |

Next, assumption regarding the EFA is related to anti-image test, and result from this analysis revealed accepted values, which are exceeded the minimum condition of 0.5. In addition, the communality values for the finale items fulfilled cutoff point of > 0.3 for evidence of data factorability.

Final stage of EFA analysis explains on factor loading for each item. The pattern matrix table revealed that 17 items were loaded into four (4) determinents; attitude, perceived behavioral control, subjective norm and religious belief. All 15 items show accepted factor loading which are above cutoff value of 4.0. The results as shown in Table 3,



ISSN 2076-9202

**Table 3:** Principal Component Analysis for Halal Food Consumption

| Demeanor | Factor Loading |
|---|---|
| **Attitude** | |
| 1. Halal food that is available in the market is hygienic food. | .905 |
| 2. Halal food that is available in the market is safe to eat. | .864 |
| 3. Halal food that is available in the market is healthy. | .828 |
| 4. I am confident in buying halal food that is available in the market. | .649 |
| **Subjective Norm** | |
| 1. Community influences me to choose halal food. | .907 |
| 2. Mass media influences me in choosing halal food for consumption. | .888 |
| 3. Halal food is a dish that always comes first at my home. | .773 |
| **Perceived Behavioural Control** | |
| 1. It is important for me to consume halal food in everyday life. | .712 |
| 2. I do not trust halal food product that is available in the market. | .547 |
| 3. I avoid consuming haram food. | .476 |
| 4. Halal food is a dish that always comes first at my home. | .694 |
| 5. The importance of halal food is always being imposed in my family. | .655 |
| **Religious Belief** | |
| 1. Islamic law influences my diet. | .702 |
| 2. Halal food is able to purify my soul. | .494 |
| 3. I refer my religion for my diet plan. | .878 |
| 4. My diet style is based on my religion's guideline. | .910 |
| **Total Variance** | **63.356** |

## Conclusion

It has been clearly mentioned in Islam about the importance of halal food in daily life; yet Muslim youth



*ISSN 2076-9202*

nowadays still have low awareness on halal food. Not only that, littel empirical study has been done to investigate the consumer attitude. Therefore, this study aims to bridge this gap and contribute to the expansion of knowledge. The result of this study shows Malaysian consumers turned out to be significantly have positive demeanor towards halal foods. The pattern matrix table revealed that 17 items were loaded into four (4) determinants; attitude, perceived behavioral control, subjective norm and religious belief. Overall, the present study has given a meaningful information to all consumers about halal food, therefore it is a valuable guideline for them to choose the right food in the market.

## References

Khattak, J. Z. K., Mir, A., Anwar, Z., Abbas, G., Khattak, H. Z. K., & Ismatullah, H. (2011). Concept of halal food and biotechnology. *Advance Journal of Food Science and Technology*, *3*(5), 385-389.

Al-Qardawi, Yusuf. (2003). The Lawful and Prohibited in Islam by Yusuf al-Qaradawi. Retrieved 30 Sep 2016 from http://www.2muslims.com/directory/Detailed/226100.shtml#Food and Drink

Qureshi, S. S., Jamal, M., Qureshi, M. S., Rauf, M., Syed, B. H., Zulfiqar, M., & Chand, N. (2012). A review of Halal food with special reference to meat and its trade potential. *J Anim Plant Sci*, *22*(2 Suppl), 79-83.

Halal Malaysia Portal. (2011). Defination of Halal. Retrieved 28/3/2014 from http://www.halal.gov.my/v3/index.php/en/about-halal-certification/halal-definition

Bonne, K., Vermeir, I., Bergeaud-Blackler, F., & Verbeke, W. (2007). Determinants of halal meat consumption in France. *British Food Journal*, *109*(5), 367-386.

Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckman (Eds.), *Action-control: From cognition to behavior* (pp. 11-39). Heidelberg: Springer.

Gilholm, R., Ettema, D., Selart, M. & Garlin, T. (1996). The Role of Planning for Intention-Behavior Consistency. Aticle was presented at the 11th general meeting of the European Association of Experimental Social Psychology (EASEP). Gmunden, Austria.

Shah Alam, S., & Mohamed Sayuti, N. (2011). Applying the Theory of Planned Behavior (TPB) in halal food purchasing. International Journal of Commerce and Management, 21(1), 8-20.

Khalek, A. A. (2014). Young consumers' attitude towards halal food outlets and JAKIM's halal certification in Malaysia. *Procedia-Social and Behavioral Sciences*, *121*, 26-34.

Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), Testing structural equation models (pp. 136-162). Newsbury Park, CA: Sage.



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# THEORETICAL ANALYSIS OF MANAGING CORPORATE SOCIAL RESPONSIBILITY IN DEVELOPING COUNTRIES

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**Abstract**

A Corporate Social Responsibility, generally noted by "CSR", refers to a corporation's initiatives to assess and take responsibility for the company's effects on environmental and social well-being. It generally applies to efforts that go beyond what may be required by regulators or environmental protection groups. Governments seeking to advance sustainable development are increasingly turning to policies and strategies that encourage, support, mandate, or directly demonstrate more socially and environmentally sound business practices. A central component of these policies involves promoting increased transparency of economic activities. The purpose of this study is to analyze how companies in developing countries manage their business processes to produce an overall positive impact on society. This is to evaluate the sustainability, social impact and ethics, and done correctly should be about core business and to determine how companies make their money, not just add-on extras such as philanthropy. The documentary research is the most method used to conduct this study. The results showed that CSR in developing countries is a rich and fascinating area of enquiry, which is becoming ever more important in managing a CSR theory and practice. The findings also showed that managing CSR in developing countries is a tremendous opportunity for improving knowledge and getting a profoundly understanding about social responsibility of an organization or a corporate.

**Key words:** *corporate social responsibility, ethics, stakeholders, shareholders, marketplace.*

## 1. Introduction

Corporate social responsibility is a movement aimed at encouraging companies to be more aware of the impact of their business on the rest of society, including their own stakeholders and the environment (Financial Times Definition, 2018). Since many years ago, the social groups are confronted with several problems that threaten the world till now and can lead it to the ruin. We can hold up as an example: the corruption, the nepotism, the patronage, absence of democracy and fairness, the impunity, ethnical conflicts, bad management of enterprises, fraud, theft, and so one. All these phenomena are based generally on the good management of spending to realize and receipts to collect in order to improve the living conditions of populations and to respond to their societal demands in the eyes of their degradation. Each society needs more useful strategies and resources to reply on collective needs. This issue remains difficult to reach for countries, commonly called "developing countries" that are very far from reaching these objectives.

As the opening vignette illustrates, determining how to conduct business in a corporate appropriately can be challenging. Wrong doing by businesses has focused public attention, managers and government involvement to encourage more acceptable business conduct. Any business decision may be judged as right or wrong, ethical or unethical, legal or illegal, responsible or not.

In this writing, the aim of this study is to analyze the social responsibility of managing corporate in developing countries. This is to have a look at the role of ethics and social responsibility in business



*ISSN 2076-9202*

decision making. The challenge for corporate social responsibility (CSR) in developing countries is framed by a vision that was distilled in 2000 into the Millennium Development Goals '*a world with less poverty, hunger and disease, greater survival prospects for mothers and their infants, better educated children, equal opportunities for women, and a healthier environment*' (UN, 2006, p.3). Unfortunately, these global aspirations remain far from being met in many developing countries today.

This research is undertaken in three stages: First, making a state of the literature places related to this study. This is to investigate whether any similar studies had been conducted before, determine the nature of any existing documents and gain an overview of the main arguments. Second, data is collected in a program drawing on the views of key commentators and practitioners and propose a set of indices for CSR auditing. Finally, data analysis is conducted using an established scientific approach.

The methodology used as the basis of this study is the qualitative approach, which is defined as the discovery of theory from data systematically obtained from social research (Glaser and Strauss 1967). This method was chosen because of its capacity to generate theoretical explanations from largely qualitative information of the sort captured from reports and other documents. It is also a robust scientific approach that provides results from diverse and unstructured data.

Therefore, to achieve this purpose, this study would like to answer the following main research question: *What is the role of business in tackling the critical issues of human development and environmental sustainability in developing countries?*

## 2. Critical analysis on Managing a corporate social responsibility

### 2.1.Conceptual framework of analysis

Corporate social responsibility (CSR) is a business approach that contributes to sustainable development by delivering economic, social and environmental benefits for all stakeholders. The way it is understood and implemented differs greatly for each company and country. Moreover, CSR is a very broad concept that addresses many and various topics such as human rights, corporate governance, health and safety, environmental effects, working conditions and contribution to economic development.

In fact, the broadest definition of CSR is concerned with what is or should be the relationship between global corporations, governments of countries and individual citizens. More locally, this is concerned with the relationship between a corporation and local society in which it resides or operates. Another definition is concerned with the relationship between a corporation and its stakeholders.

There is no clear or agreed definition of Corporate Social Responsibility (CSR), so this raises the question as to "what exactly can be considered to be corporate social responsibility."

According to the European Commission (2002, p.347) manages CSR is "the responsibility of enterprises for their impacts on society." In other words, "…CSR is a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis."

Carroll (1991) presented CSR as a multi-layered concept that consists of four interrelated aspects: economic, legal, ethical and philanthropic responsibilities. For her, companies are created to provide goods and services to the public and to make a profit. CSR is an equally contested concept (Moon, 2002b).

Whatever the definition is, the purpose of managing a CSR is to drive change towards sustainability. Although some companies may achieve remarkable efforts with unique CSR initiatives, it is difficult to be on the forefront on all aspects of CSR.

To begin with, it is worth clarifying the use of the terms developing countries and CSR. There is an extensive historical and generally highly critical debate in the development literature about the classification of countries as developed and less developed or developing. Without reviving that debate here, suffice to say that the study use developing countries because it is still a popular term used to collectively describe nations that have relatively lower per capita incomes and are relatively less industrialized.

From the outset , the study uses CSR in developing countries to represent 'the formal and informal



ISSN 2076-9202

ways in which business makes a contribution to improving the governance, social, ethical, labor and environmental conditions of the developing countries in which they operate, while remaining sensitive to prevailing religious, historical and cultural contexts' (Visser et al., 2007). Considering this, the example below provides good practices on one aspect of CSR environmental sustainability.

**Figure 1: Diagram of Managing a corporate social responsibility**

**Source:** Mallen Baker on CSR (2004).

Social responsibility has become an important topic on the corporate agenda in the light of corporate scandals, concerns about globalization and a growing mistrust of business. It pays attention to all stakeholders who are affected by their actions. Today, special interest groups continue to be one of the largest stakeholders concerns that companies face. Environmental responsibility has become a primary issue as both business and the public acknowledge the damage that has been done to our natural environment. The most important stakeholders known are the government and the community, which have become increasingly important in recent years. On one hand, most corporations exist only under the proper charter and license, and operate within the limits of safety laws, environmental protection requirements, antitrust regulations, antibribery legislation and other types of laws and regulations in the government sector. On the other hand, the community includes local government, the natural and physical environments and the quality of life for residents.

Thus, companies need to answer to two aspects of their operations: (i) the quality of their management both in terms of people and processes (the inner circle), (ii) the nature of, and quantity of their impact on society in the various areas.

Outside stakeholders are taking an increasing interest in the activity of the company. Most look to the outer circle what the company has actually done, good or bad, in terms of its products and services, in terms of its impact on the environment and on local communities, or in how it treats and develops its workforce. Out of the various stakeholders, it is financial analysts who are predominantly focused as well as past financial performance on quality of management as an indicator of likely future performance.

### 2.2.Overview on CSR in the world

#### 2.2.1. Dimensions of CSR

Business and academic researchers have shown increasing levels of interest in Corporate Social Responsibility (CSR) during recent years (Maignan, 2002). The theme of environmental and social responsibility appears in a number of political and legal documents and is gaining ever-greater importance at the international level. Today, corporate leaders face a dynamic and challenging task in attempting to apply societal ethical standards to responsible business practice. Companies, especially those operating in global markets, are increasingly required to balance the social, economic and environmental components of their business, while building shareholder value.

Management is responsible for creating and sustaining conditions in which people are likely to behave themselves. Managers must take active steps to ensure that the company stays on an ethical



ISSN 2076-9202

footing. This management should consider the Ethical and social responsibility business practices. These depend on individual managers and the organization's values, policies, and practices. So, managers must use the three pillars that support an ethical organization: ethical individuals, ethical leadership and organizations, structures and systems.

The socio economic view stated that management's social responsibility of a corporate goes beyond making: (i) profits to include protecting and improving society's welfare, (ii) corporations are not independent entities responsible only to stockholders: complex set of goals, (iii) firms have a moral responsibility to larger society to become involved in social, legal and political issues, (iv) to do the right thing and (v) the myth of shareholder capitalism.

The management of CSR covers a wide range of issues which are ambiguous as to what is right or wrong. What about two companies engaged in intense competition? Is it socially responsible for a strong company to drive a weak company out of business? A company's environmental impact must also be taken in consideration. The table below presents some arguments "for" and "against" social responsibility:

**Table 1: Arguments for and against social responsibility in an organization**

| Arguments "for" Social Responsibility | Arguments "against" Social Responsibility |
|---|---|
| Public expectation | Violation of profit maximization |
| Long-run profits | Dilution of purpose |
| Public image | Costs |
| Better environment | Too much power |
| Government regulation | Lack of skills |
| Responsibility and power | Lack of accountability |
| Stockholder interest | |
| Possession of resources | |
| Prevention over cures | |

**Source:** Author adapted from Maignan, 2002

In the visualization of the above table, the main concern of this point is to determine whether social responsibility in managing a corporate pays or not. The following reasons below explain the advantages and disadvantages of driving a social responsibility in a business company: (i) positive relationship between social involvement and the economic performance of firms, but the (ii) difficulties in defining and measuring "social responsibility" and "economic performance raise issues of validity and causation in the studies, (iii) mutual funds using social screening in investment decisions slightly outperformed other mutual funds, (iv) firm's social actions do not harm its long-term performance and (v) align values and competences= social responsibility enlightened self-interest. Doing well by doing good (Michael Porter). This means that "managing social responsibility in an organization" implies:



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**Figure 2: Managing Social Responsibility paths**

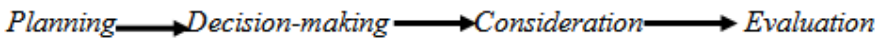



**Figure 3: Implementation of CSR**

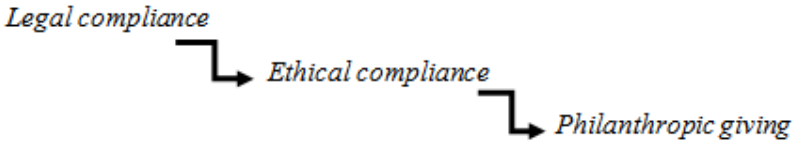



**Figure 4: Informal dimensions of CSR**

**Source:** Author adapted from Maignan, 2002.

### 2.2.2. Corporate Social Responsibility Audit and its Steps

Many successful companies have become world-renowned for incorporating social causes and social initiatives into their cultures, their values, and business strategies. Increased customer preference for social responsibility points to the importance of understanding how this type of philosophy can enhance your business. The audit helps to measure the company's actual social performance against the social objectives it has set for itself. In other words, "Is your company a good global citizen? How do you know? What can you do to improve your positioning?" This is to evaluate the integrating business strategy and corporate social responsibility contributes to: (i) positive brand awareness, (ii) increased employee satisfaction, (iii) reduced operating costs, (iv) improved community relations and (v) corporate accountability. This means that corporate social audit is: 1. Tool for the evaluation of social responsibility effectiveness; 2. Formal and thorough analysis and 3. Conducted by task force.

When making payroll and finding your next customer are top priorities, it may at times seem difficult, if not impossible, to focus on your corporate social responsibilities. But there is no better time to integrate a socially responsible corporate culture into your organization than right now. This is especially true in early-stage companies and start-ups, when business practices and organizational norms are just being formed.

In other words, the major perception of CSR is that it can be an excellent tool for enhancing the legitimacy of the firm among its stakeholders and the development of a positive corporate image. A key vehicle for enhancing corporate image is the social report (Hess 1999). The value of the social report is perceived as residing in the creation of social transparency as well as in institutionalizing responsible decision-making and creative thinking in management. Effective development of social reporting can be seen in the recent success of non-mandatory environmental auditing.

Building on this progress, Hess (1999) argues that there is a need to establish an audit system that includes all aspects of a firm's social performance. On the evidence discovered to date in the literature, CSR seems to be perceived by many as the social strand of sustainable development, including the World Business Council for Sustainable development, and the European Parliament. However, there is far less agreement regarding its measurement. The literature review indicates that developing an applied CSR



ISSN 2076-9202

auditing procedure will be a challenging task. This is mainly due to the lack of formal study of the topic, despite the widespread debate it has engendered. However, several current measurement procedures for CSR exist, which gives a promising indication that there is sufficient experience to develop appropriate methods and indices for a comprehensive auditing system. Chronologically, this study consists of: (i) define social goals, (ii) analyze resources devoted to each goal, (iii) determine degree of achievement for each goal and (iv) make recommendations for the future.

### 2.3.Overview on Managing Corporate Social Responsibility in developing countries

The rationale for focusing on CSR in developing countries as distinct from CSR in the developed world is fourfold: (1) Developing countries represent the most rapidly expanding economies, and hence the most lucrative growth markets for business (IMF, 2006); (2) Developing countries are where the social and environmental crises are usually most acutely felt in the world (WRI, 2005; UNDP, 2006); (3) Developing countries are where globalization, economic growth, investment, and business activity are likely to have the most dramatic social and environmental impacts (both positive and negative) (World Bank, 2006); (4) Developing countries present a distinctive set of CSR agenda challenges which are collectively quite different to those faced in the developed world.

#### 2.3.1. Classification of literature on CSR in developing countries

In part, this reflects the fact that corporate social responsibility is the preferred term in the literature to describe the role of business in developing countries, as opposed to, say, business ethics, corporate citizenship, corporate sustainability, or stakeholder management. More than this, however, social issues are generally given more political, economic, and media emphasis in developing countries than environmental, ethical, or stakeholder issues (Schmidheiny, 2006). And there is also still a strong emphasis on the philanthropic tradition in developing countries, which is often focused on community development (figure 5 et 6).

**Figure 5: Content theme of CSR in developing countries**

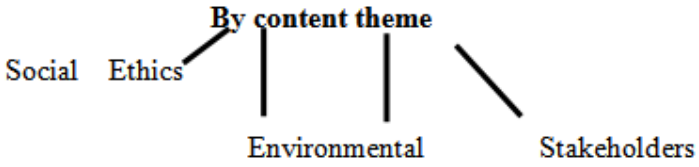
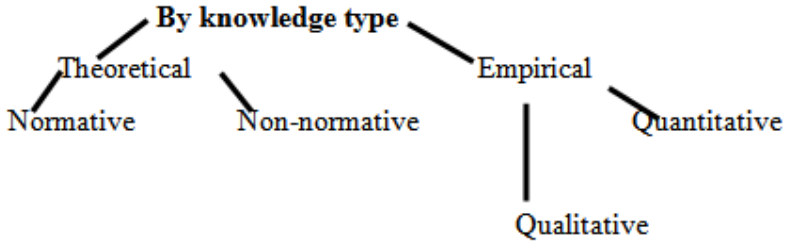



**Figure 6: Knowledge type of CSR in developing countries**




**Source:** Author adapted from World Bank, 2006.

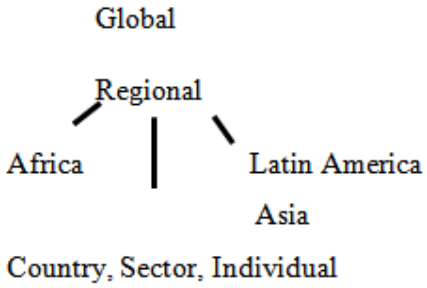
Lockett et al. (2006) also classify CSR papers by epistemological approach and find a roughly even split between theoretical and empirical research, which is also the case in the literature on CSR in developing



ISSN 2076-9202

countries, although the latter has a slight weighting towards empirical work. What is interesting is that, whereas Lockett et al. (2006) find that 89%of theoretical CSR papers are non-normative, in the CSR in developing countries literature; the balance is far more evenly split. This is largely due to the relatively large number of papers on the role of business in development, which tend to adopt a normative, critical perspective (Blowfield and Frynas, 2005).

**Figure 7: Global context of CSR in developing countries**
**By analysis level**




**Source:** Author adapted from World Bank, 2006.

In terms of empirical research, there are also differences. According to Lockett et al. (2006), the CSR literature is dominated by quantitative methods (80%). In contrast, CSR papers on developing countries are more likely to be qualitative.

There is very little empirical research on the nature and extent of CSR in developing countries. One notable exception is Baskin's (2006) research on the reported corporate responsibility behavior of 127 leading companies from 21 emerging markets across Asia, Africa, Latin America, and Central and Eastern Europe, which he compares with over 1,700 leading companies in high-income OECD countries.

### 2.3.2. Current trends in CSR

Corporate reporting whether mandated or voluntary on environmental, social, labor and human rights issues is a relatively new phenomenon. While a small number of firms have irregularly published information on their nonfinancial performance, more systematic and standardized systems of social and environmental reporting only emerged in the late-1980s and early-1990s.

Since the 1980s, governments, firms, and NGOs around the world have developed a wide range of reporting systems with goals as diverse as reducing pollution, mitigating health and safety risks, spotlighting (and thus rooting out) corruption, improving public service delivery, and protecting civil rights. With each new initiative in public reporting, public demands for fuller information and a deeper "right-to-know" appear to solidify.

These initiatives have been driven by a range of pressures and demands from: consumers, NGOs, unions, investors, governments, community members, and firms themselves.

### 2.3.3. Drivers of CSR in developing countries

There are several types of CSR' drivers in developing countries, regrouped in two main categories



ISSN 2076-9202

such as:

1. *Internal drivers*

These are : (i) the **Political reform.** The CSR in developing countries cannot be divorced from the socio-political reform process, which often drives business behavior towards integrating social and ethical issues. (ii) The **Crisis response** can be analyzed by various kinds of crises associated with developing countries. These often have the effect of catalyzing CSR responses. These crises can be economic, social, environmental, health-related, or industrial. Catastrophic events with immediate impact are often more likely to elicit CSR responses, especially of the philanthropic kind. The corporate response to the Asian tsunami is a classic case in point (Fernando, 2007). However, industrial accidents may also create pressure for CSR. (iii) The **Cultural tradition:** many believe CSR is a Western invention (and this may be largely true in its modern conception). CSR in developing countries draws strongly on deep-rooted indigenous cultural traditions of philanthropy, business ethics, and community embeddedness. Indeed, some of these traditions go back to ancient times. (iv) the **Socioeconomic priorities:** CSR in developing countries is most directly shaped by the socio-economic environment in which firms operate and the development priorities this creates. (v) the **Governance gaps:** CSR as a form of governance or a response to governance challenges is discussed elsewhere in this book (Levy and Kaplan, Chapter 19). However, of particular relevance for developing countries is the fact that CSR is often seen as a way to plug the 'governance gaps' left by weak, corrupt, or under-resourced governments that fail to adequately provide various social services (housing, roads, electricity, health care, education, etc.). This as part of a wider trend in developing countries with weak institutions and poor governance, in which responsibility is often delegated to private actors, be they family, tribe religion, or, increasingly, business. Furthermore, 'as many developing country government initiatives to improve living conditions falter, proponents of [CSR and bottom of the pyramid] strategies argue that companies can assume this role'. The **Market access:** The flipside of the socio-economic priorities driver is to see these unfulfilled human needs as an untapped market. This notion underlies the now burgeoning literature on 'bottom of the pyramid' strategies, which refer to business models that focus on turning the four billion poor people in the world into consumers (Prahalad and Hammond, 2002; London and Hart, 2004; Rangan *et al.*, 2007). As study has previously noted, this straying of business into the development arena is not without its critics or problems (Hardcourt, 2004). CSR may also be seen as an enabler for companies in developing countries trying to access markets in the developed world.

2. *External drivers*

These are (i) the **International standardization:** Despite the debate about the Western imposition of CSR approaches on the global South, there is ample evidence that CSR codes and standards are a key driver for CSR in developing countries. Codes are also frequently used as a CSR response in sectors that are prevalent in developing countries, such as horticulture (Dolan and Opondo, 2005), cocoa (Schrage and Ewing, 2005), and textiles (Kaufman *et al.*, 2004), as well as to deal with pressing social issues in developing countries, such as child labor (Kolk and Van Tulder, 2002) or the role of women in the workplace (Prieto-Carron, 2004). Often, CSR is driven by standardization imposed by multinationals



ISSN 2076-9202

striving to achieve global consistency among its subsidiaries and operations in developing countries; (ii) The **Supply chain:** another significant driver for CSR in developing countries, especially among small and medium-sized companies, is the requirements that are being imposed by multinationals on their supply chains. This trend began with various ethical trading initiatives (Blowfield, 2003, 2004), which led to the growth of fair trade auditing and labeling schemes for agricultural products sourced in developing countries (Dolan and Opondo, 2005; Schrage and Ewing, 2005). Allegations of poor labor conditions and human rights abuses in several high profile multinational supply chains in the sporting and clothing sectors were also a significant catalyst for greater attention to CSR requirements (Hussain-Khaliq, 2004; Kaufman *et al.*, 2004; Nielsen, 2005). One response has been the development of certifiable standards like SA 8000, which is now widely used as a screening mechanism for multinationals in selecting their suppliers in developing countries (Kolk and Van Tulder, 2002). Major change has also been achieved through sector-based initiatives such as the Forest Stewardship Council for sustainable forestry and the Marine Stewardship Council for sustainable fishing. More recently, this driver has been scaled up due to the so called 'Wal-Mart effect' whereby major global and national retailers are committing to promoting sustainability and responsibility through their suppliers (Johnson, 2004). (iii) the **Investment incentives:** the belief that multinational investment is inextricably linked with the social welfare of developing countries is not a new phenomenon (Gabriel, 1972). However, increasingly these investments are being screened for CSR performance. Hence, socially responsible investment (SRI) is becoming another driver for CSR in developing countries. As one indicator of this, Baskin (2006) notes that approximately 8% of emerging market companies on the Dow Jones World Index are included in the Dow Jones Sustainability Index, compared with around 13% of high-income companies. Exchange also launched its own tradable SRI Index, the first of its kind in an emerging market (Sonnenberg *et al.*, 2004). and (iv) the **Stakeholder activism:** in the absence of strong governmental controls over the social, ethical, and environmental performance of companies in developing countries, activism by stakeholder groups has become another critical driver for CSR. Lund-Thomsen (2004) describes this as 'an outcome of micro-level struggles between companies and communities over the distribution of social and environmental hazards which are created when global political and economic forces interact with local contexts around the world' (p. 106).

In developing countries, four stakeholder groups emerge as the most powerful activists for CSR, namely development agencies (Jenkins, 2005), trade unions (Kaufman *et al.*, 2004), international NGOs (Christian Aid, 2005), and business associations (WBCSD, 2000). These four groups provide a platform of support for local NGOs, which are not always well developed or adequately resourced to provide strong advocacy for CSR. The media is also emerging as a key stakeholder for promoting CSR in developing countries (Vivarta and Canela, 2006). Stakeholder activism in developing countries takes various forms, such as civil regulation, litigation against companies, and international legal instruments.

### 2.3.4. Metric aspects of CSR in developing countries

#### 1. Meaning of Metric aspects of CSR

Clark et al. (1975) stated that the attraction of CSR, as defined, is that of a systems approach which states that the problem is defined and the systems boundary delineated so that all important influences on resolving the problem are taken into consideration to the issue of business in society. With hundreds of



ISSN 2076-9202

corporation now producing reports, a wide range of laws being implemented around the world, and dozens of non-governmental initiatives on transparency and reporting emerging, there is staggering variation in what is reported, in what forms, and for which audiences.

The definition that is most appealing is the stakeholder definition, as put forward by Hopkins: "CSR is concerned with treating the stakeholders of the firm ethically or in a socially responsible manner. Stakeholders exist both within a firm and outside. The aim of social responsibility is to create higher and higher standards of living, while preserving the profitability of the corporation, for its stakeholders both within and outside the corporation". (Hopkins, 2003). Indeed, this definition begs the question what is meant by 'ethical' and what is meant by 'stakeholder'.

On one hand, this study defined corporate social responsibility (CSR) and, on the other hand, it sets up a framework to measure it. To date, the measurement systems used and the various concepts of CSR have no systematic basis. Indicators seem to be chosen on the whim of the moment. However, at least some data now exist to measure progress on social aspects of corporate behavior. In fact, it is even possible to use some of the available data that companies now make available in order to hazard a guess to whether CSR is getting better or worse.

Unfortunately, the measurement systems used (of CSR, corporate responsibility or corporate sustainability or business ethics or business in society or corporate citizenship) have no systematic conceptual basis, rarely define concepts and choose indicators based on the whim of the moment. On the other hand, at least some data now exist to measure progress on social aspects of corporate behavior.

In fact, the measurement of CSR has much improved since the late 1990s, as purported by Hopkins (1997). It is even possible to use some of the data that companies now make available to hazard a guess as to whether CSR is getting better or worse. However, firstly, it is important to have a look at what is meant by a conceptual framework and, then, examine some of the major indicator sets in some detail.

## 2. Major indicator sets of CSR measurement

The Global Reporting Initiative "GRI" carried out an extensive consultation of specialists to define indicators to measure progress on social reporting. It recognizes that developing a globally accepted reporting framework is a long-term endeavor. It notes that, in comparison, financial reporting is well over half a century old and still evolving amidst increasing public attention and scrutiny. The methodology is extensively and clearly presented in their report. In fact, the GRI uses the term 'sustainability reporting' synonymously with citizenship reporting, social reporting, triple-bottom line reporting and other terms that encompass the economic, environmental, and social aspects of an organization's performance.

The table 2 below summarizes the main indicator systems and the study takes Cisco Company as a case study example. It is not easy to get in behind the methodologies and indicator sets used by analysts and one can wonder what is really being measured.

**Table 2: Main indicator systems of CSR measurement "Workplace, Diversity and Social impact indicators"**

| Indicators | FY05 | FY06 | FY07 | FY08 | FY09 |
|---|---|---|---|---|---|
| **WORKPLACE** | | | | | |



ISSN 2076-9202

| | | | | | | |
|---|---|---|---|---|---|---|
| Employee satisfaction | Percentage of employee who agreed with seven statements about Cisco as a place to work (average) | 81% | 85% | 86% | 87% | 90% |
| Voluntary employee attrition | Total voluntary attrition as percentage of ending headcount | 4.59% | 5.45% | 4.52% | 5.01% | 3.22% |
| Health and Safety (operations only US and Canada) | Number of nonfatal injuries and illnesses | 129 | 107 | 93 | 137 | 145 |
| | | **DIVERSITY** | | | | |
| Women | Women as percentage of total global employees | 21.8% | 22.1% | 23% | 23.5% | 23.4% |
| | Women in VP positions or above as percentage of global VP and above employees | 13.2% | 14.0% | 12.7% | 15.5% | 15.5% |
| Ethnic minorities (US only) | Ethnic minorities as percentage of total US employees | 42.3% | 42.8% | 43.7% | 44.7% | 45.6% |
| | Ethnic minorities in VP positions and above as percentage of total US. VP and above | 17.6% | 17.5% | 15.6% | 22.2% | 20.8% |



ISSN 2076-9202

| | | | | | | |
|---|---|---|---|---|---|---|
| | employees | | | | | |
| **SOCIAL IMPACT** | | | | | | |
| Social investment | Total corporate wide and foundation cash and in-kind contributions | $65 million | $115.5 million | $116.8 million | $92 million | $128.6 million |
| Employee volunteerism | Number of active students in Cisco networking academy courses | 235,000 | 160,000 | 130,000 | 88,870 | 78,000 |
| Cisco networking academy | Cisco leaders who share their expertise with nonprofit organizations | 596,840 | 597,085 | 637,304 | 716,936 | 810,000 |
| Leadership fellows | Number of countries or regions where Cisco currently invests or manages programs | 5 | 8 | 17 | 20 | 13 |
| Social and economic investment | Significant collaborations with corporate partners, nonprofits and NGOs | 160 | 160+ | 160+ | 160+ | 165+ |
| Strategic partners | | 31 | 36 | 34 | 41 | 58 |

**Source:** Corporate Social Responsibility Report (2009), "*CSR Key Performance Indicators*", Cisco Systems, Inc.



*ISSN 2076-9202*

**Table 3: Main indicator systems of CSR measurement "Environmental management; GHG emissions; energy and electricity usage; product return and recycling; and water consumption indicator"**

| Indicators | FY06 | FY07 | FY08 | FY09 |
|---|---|---|---|---|
| **ENVIRONMENTAL MANAGEMENT** | | | | |
| Number of Cisco sites with ISO 14001 EMS certification | 19 | 25 | 25 | 26 |
| Employee base covered by ISO 14001 EMS certification | 75% | 73% | 71% | 68% |
| **GHG EMISSIONS** | | | | |
| Total gross GHG emissions: Scope 1 (metric tonne $CO_2$ c) | 27,586 | 52,496 | 52,084 | 53,216 |
| Total gross GHG emissions: Scope 2 (metric tonne $CO_2$ c) | 317,666 | 467,478 | 550,312 | 579,183 |
| Total contractual GHG emissions: Scope 2 (metric tonne $CO_2$ c) | 316,893 | 403,188 | 310,961 | 226,733 |
| Total air travel GHG emissions: Scope 3 (metric tonne $CO_2$ c) | 190,940 | 205,797 | 197,872 | 115,995 |
| Change in air travel GHG emissions from FY06 (CGI global goal: 10% absolute reduction against FY06 baseline) | | +8% | +4% | +3% |
| Total contractual GHG emissions: Scope 1, 2 and 3 1 metric tonne $CO_2$ c | 535,419 | 661,483 | 560,917 | 395,944 |
| Change in Scope 1, 2 and 3 from FY07 (EPA global 26% absolute reduction against CY07 baseline) | - | - | -15% | -40% (goal year is 2012) |
| **ENERGY AND ELECTRICITY USAGE** | | | | |
| Energy usage (GWh) | 889[tc] | 1281 | 1438 | 1507 |
| Electricity usage (GWh) | 749[tc] | 1053 | 1203 | 1275 |
| **PRODUCT RETURN AND RECYCLING** | | | | |
| Product return (million pounds) | - | - | 22.1 | 23.6 |
| Materials to landfill (percent of returned product not reused or recycled) | - | - | 0.46% | 0.44% |
| **WATER CONSUMPTION** | | | | |
| Total water consumption ($m^3$) | Not available | 1,726,618 | 1,570,831 | 1,654,030 |



ISSN 2076-9202

**Source:** Corporate Social Responsibility Report (2009), "*CSR Key Performance Indicators*", Cisco Systems, Inc.

Although data are not generally available for many companies at once individual companies often present comprehensive sets no consistent pattern of data collection and presentation has emerged. As the CSR community has become more watchful and social investment funds more demanding, the need for an overall index of progress on CSR has emerged. Several of the above-mentioned data systems have attempted to provide indices and rankings of companies.

Initial attempts to measure progress on CSR based upon these indices have also emerged. However, the indices that have emerged measure averages across companies. And, as noted in this paper, consistency of application remains a problem. Moreover, the challenge that is more and more being presented is how to embed the ideas of CSR throughout an organization. This is the problem that many companies face. It is possible to obtain indicators that show a good record 'on average' but difficult to embed the ideas of CSR throughout an organization and no one to date has produced disaggregated indicators across the company. The lack of indicators of a consistent and disaggregated level leads to poor monitoring and evaluation systems. That is probably why scandals will continue to erupt in supposedly 'clean' organizations.

For organizations to have relatively good data on the economic aspects but very poor information on the social dimensions implies that the basic conceptual model has been weak. Hence, for the future, a better model of social data, to be based upon hard or interval scale data is a necessary requisite. Much of today's information is founded upon weaker nominal or, at best, ordinal scale data and the proposed framework is no exception. Therefore, in order to ensure the same type of robust yardsticks found in economics, such as profit, sales, costs and so on though problems can arise with these it is important to develop, through a significant effort for the social arena, new conceptual models from which harder data can be derived. For corporate social responsibility, it is still the early days of relevant performance measurement and 'metrics' in societal terms.

### 2.4.Challenges of CSR in developing countries

There are a number of major challenges to making CSR reporting effective. Questions remain in different sectors and countries on what to report, in what form, to what level of detail, to what audiences, and for what uses. There are also weaknesses and problems with current systems of CSR reporting, and important barriers to expanding public disclosure systems around the world. These include problems of: (i) metrics and Materiality; (ii) timeliness and Usefulness of Information; (iii) incentives to Disclose; (iv) supply Chain Monitoring; (v) costs to Information Producers and Users; and (vi) analyzing and Translating Information for end users.

## 3. Theoretical and empirical Evidences of CSR in developing countries

### 3.1.Theoretical model of CSR in developing countries

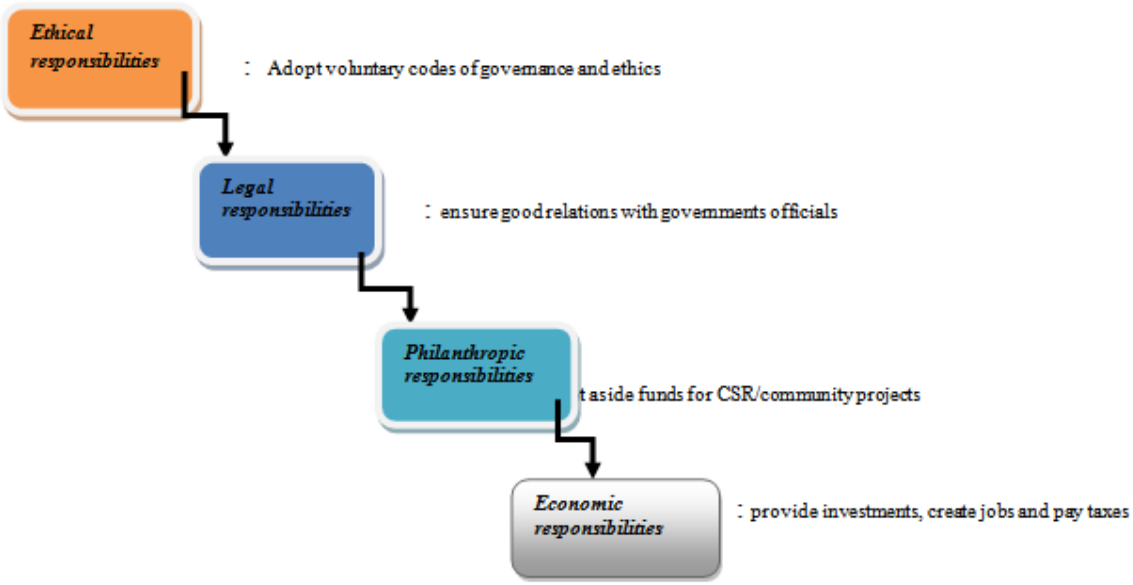
Indeed, taking into account two main variables of this study (CSR and developing countries), the study proposed a theoretical model adapted to these two variables. This model is used to analyze the management of CSR in developing countries as a tools and strategies of sustainable development and also



ISSN 2076-9202

to the data available to meet the concerns of the study. Thus, the theoretical model proposed by Carroll could be presented as the figure below is presented. This consists of four-part model construct that can be useful to look at how CSR is manifested in a developing country context:

**Figure 9: Model construction of CSR in developing countries (Carroll, 1991)**




**Source:** Author adapted from Carroll, 1991

### 3.1.1. Economic responsibilities

It is well known that many developing countries suffer from a shortage of foreign direct investment, as well as from high unemployment and widespread poverty. It is no surprise, therefore, that the economic contribution of companies in developing countries is highly prized, by governments and communities alike. This should not be seen in a negative light, but rather as a more development-oriented approach to CSR that focuses on the enabling environment for responsible business in developing countries and that brings economic and equity aspects of sustainable development.

Hence, in developing countries, CSR tends to stress the importance of 'economic multipliers', including the capacity to generate investment and income, produce safe products and services, create jobs, invest in human capital, establish local business linkages, spread international business standards, support technology transfer and build physical and institutional infrastructure (Nelson, 2003).

For this reason, companies that operate in developing countries increasingly report on their economic responsibilities by constructing 'economic value added' statements. It is worth re-emphasizing as a caveat that economic responsibility has two faces economic contribution on the one side and economic dependence on the other.

When communities or countries become overly dependent on multinationals for their economic welfare, there is the risk of governments compromising ethical, social, or environmental standards in order to retain their investment, or suffering huge social disruption if those businesses do decide to disinvest.



ISSN 2076-9202

### 3.1.2. Philanthropic responsibilities

Although philanthropy generally gets an even higher priority as a manifestation of CSR, philanthropic responsibility tends more often to be more compulsory via the legal framework than discretionary acts of successful companies or rich capitalists as USA. This is a result of strong indigenous traditions of philanthropy in developing countries. There are several other reasons as well:

Firstly, the socio-economic needs of the developing countries in which companies operate are so great that philanthropy is an expected norm it is considered the right thing to do by business.

Secondly, companies realize that they cannot succeed in societies that fail, and philanthropy is seen as the most direct way to improve the prospects of the communities in which their businesses operate. For example, the HIV/AIDS disease is a case in point, where the response by business is essentially philanthropic (it is not an occupational disease), but clearly in companies' own medium- to long-term economic interest.

Thirdly, over the past 50 years, many developing countries have become reliant on foreign aid or donor assistance. Hence, there is often an ingrained culture of philanthropy.

And a final reason for developing countries' prioritization of philanthropy is that they are generally still at an early stage of maturity in CSR, sometimes even equating CSR and philanthropy, rather than embracing the more embedded approaches now common in developed countries.

### 3.1.3. Legal responsibilities

In developing countries, legal responsibilities generally have a lower priority than in developed countries. This does not necessarily mean that companies flaunt the law, but there is far less pressure for good conduct. This is because, in many developing countries, the legal infrastructure is poorly developed, and often lacks independence, resources, and administrative efficiency.

Many developing countries are also behind the developed world in terms of incorporating human rights and other issues relevant to CSR into their legislation (Mwaura 2004). Admittedly, there are exceptions and some developing countries have seen significant progress in strengthening the social and environmental aspects of their legislation (Visser, 2005b). However, government capacity for enforcement remains a serious limitation, and reduces the effectiveness of legislation as a driver for CSR.

Hence, several scholars argue that tax avoidance by companies is one of the most significant examples of irresponsible business behavior in developing countries, often contradicting their CSR claims of good conduct (Christensen and Murphy, 2004).

### 3.1.4. Ethical Responsibilities

In developing countries, however, ethics seems to have the least influence on the CSR. This is not to say that developing countries have been untouched by the global trend towards improved governance (Reed, 2002). For example, the 1992 and 2002 King Reports on Corporate Governance in South Africa have both led the world in their inclusion of CSR issues (IoD, 1992, 2002). On one hand, the 1992 King Report was the first global corporate governance code to talk about 'stakeholders' and to stress the importance of business accountability beyond the interests of shareholders. On the other hand, the 2002 revised King Report was the first to include a section on 'integrated sustainability reporting', covering



ISSN 2076-9202

social, transformation, ethical, safety, health, and environmental management policies and practices.

This progress is certainly encouraging, but in general, it is still the exception rather than the rule. For instance, in "Transparency International's annual Corruption Perception Index and Global Corruption Barometer", developing countries usually make up the bulk of the most poorly ranked countries. Furthermore, survey respondents from these countries generally agree that corruption still affects business to a large extent. The World Bank's (2005) Investment Climate Survey paints a similar picture. For example, the corruption in developing countries has been the "UK-led Extractive Industries Transparency Initiative (EITI)", which aims to increase transparency over payments by companies to governments and government-linked entities, as well as transparency over revenues by those host country governments.

This is clearly a step in the right direction, but the refusal of countries like Angola to even participate shows that there is still a long way to go in embedding ethical responsibilities in developing countries.

### 3.2.Government implication on CSR in developing countries

To date, CSR in developing countries has largely been driven from the north, often by large multinational firms, private investors, or non-governmental organizations. Nonetheless, there are important roles for governments, and particularly developing country governments, to play in further advancing reporting systems. The World Bank has previously grouped government roles in supporting corporate social responsibility into five categories of action: mandating, facilitating, partnering, endorsing, and demonstrating.

Each of these strategies of action can support improvements of CSR in developing countries. Governments, and their citizens, however, must decide how they can most effectively support an environment for socially responsible business, and specifically advance CSR reporting.

#### 3.2.1. Pilot project on CSR in developing countries

There is clear potential for government action, particularly in developing countries, to advance and strengthen CSR reporting. However, in thinking about designing an appropriate and effective disclosure system in a developing country, it is also critical to recognize that there are no perfect systems, no easily replicable programs, and no one-size-fits-all standards for reporting.

By starting with a small set of core indicators, verifying that they are material to stakeholders, evaluating uses of the information, and soliciting feedback on the quality of the data, it would be possible to gradually expand and deepen CSR indicators to include sector specific issues. By having reporting be driven by local concerns and capacities, it would also be possible to gradually connect to and compare against global reporting schemes.

Government agencies and NGOs could play a key role in verifying CSR reporting information in developing countries, and gradually working to improve the credibility and accountability of reporting.

Finally, a government agency could work to aggregate data, and to produce a national CSR report. This information would support future comparisons of country-level performance on CSR issues. The program could also help local firms establish and demonstrate their social and environmental performance, and facilitate socially and environmentally responsible firms connecting into high value supply chains.



ISSN 2076-9202

Nowadays, governments take steps to advance CSR in developing countries or to experiment with reporting as strategy of governance and economic development. This study is meant as a starting point for thinking about steps needed to pilot test CSR reporting in a developing country. Countries interested in CSR reporting might: (i) Interview local stakeholders and investors about the information: they need to make critical decisions; (ii) establish a central coordinating office to set guidelines for reporting, then collect, collate, quality check, and compare information on facility performance; (iii) require firms to publicly disclose locations of factories; (iv) require firms to annually report performance criteria in a standardized format; (v) establish a central database accessible over the internet which would contain performance information on factories and simple means for comparing firms along selected criteria, such as wages, health and safety, labor practices, environmental performance, etc.; (v) create mechanisms for public comparison of firm performance; (vi) publish lists of "best practices" and the firms that employ them; (vi) publish a CSR sourcing book of leading local firms and distribute this to multinational corporations, investors and trade associations for assistance in matching MNCs with local suppliers that meet their CSR standards; (vii) Use publicity to motivate firms to improve performance to match the best practices identified in their industry; (viii) support capacity building of non-governmental groups to verify reporting; (ix) aggregate firm level performance data to show overall compliance rates, regional variations, improvements over time, and best practices in social and environmental performance within the country in investment marketing to foreign firms.

An effective pilot project should be designed as an open system that invites key stakeholders to take part in discussions about measures of performance and systems of reporting. For the sake of providing a starting point for further discussions, firms might disclose a number of standards "core indicators" of facility performance, and indicators specific to sectorial issues and concerns (World Bank, 2005).

### 3.2.2. Toward the Strategies for improving CSR in developing countries

There are some basic principles which can support efforts to advance and improve CSR reporting: (i) reporting initiatives should seek to increase the quality of information disclosed; (ii) they should work to increase the uses of the information and the benefits to users; (iii) they should create mechanisms for learning and continuously improving disclosure systems.

These goals can be supported through explicit efforts to target information to specific stakeholders and decision-making processes. Information should be reported in formats useful to specific users. And efforts should be made to verify that information is used by stakeholders to inform their decisions.

**1. Standardized metrics**

Continued work is needed on standardized metrics and indicators for reporting. However, metrics in general should be: (i) Agreed upon by key stakeholders (representing what matters to them); (ii) Factual, accurate, and verifiable; (iii) Reported at regular intervals in relatively simple language or data; (iv) Comparable across locations, firms, and products; (v) Flexible/dynamic, so that metrics can change over time; (vi) Usable by key stakeholders; (vii) Easily accessible.

**2. Incentives for continuous improvement**



ISSN 2076-9202

Efforts are also needed to support continuous improvements in reporting. As mentioned, intermediary groups are critical to analyzing and deploying information, and perhaps more importantly, to creating demands for improved reporting.

Stakeholder groups with built-in incentives for using, analyzing, and monitoring the quality of the information are central to the long-term sustainability of reporting schemes. In financial disclosure, investors play this role of demanding high quality, verifiable information upon which to base their investments. In environmental disclosure (such as the TRI), environmental groups use the data, translate it for wider consumption, and keep pressure on the government and firms to improve reporting. No equivalent group currently exists for CSR in developing countries, or indeed social reporting. Disclosure systems can also be designed to create incentives and benefits for leading disclosers. Governments can foster certain kinds of disclosure through a range of traditional economic incentives, and through regulatory flexibility mechanisms.

Finally, in any system of disclosure it is critical to establish mechanisms to track changes in practices over time, their impacts, and whether learning is occurring from reporting. All of these strategies can be supported or directly advanced through government actions.

### 3. Possible "core indicators"

These are: (i) name and location of factory and number of employees; (ii) incidence of violations of local laws, penalties, legal proceedings, etc. in the last year; (iii) wages and benefits paid to workers (averages, minimum, highest), and incidence of violations of minimum wage laws; (iv) working hours and overtime worked: incidence of violations of maximum working hour laws and overtime pay laws; (v) policies for identification and elimination of harassment and discrimination: data on diversity in management and work areas; (vi) policies for identification and elimination of child, forced , and compulsory labor (including system for determining accurate age of workers); (vii) indicators of respect for workers' rights to freedom of association: percent of workers in a union, union-management relations, work stoppages, lock-outs, strikes, etc.; (viii) health and safety performance: rates of accident, injuries, occupational diseases and deaths; (ix) policies for monitoring compliance with local laws and codes of conduct.

### 4. An ideal CSR' management for developing countries

The descriptive approach adopted in the previous sections was used to illustrate how CSR actually manifests in developing countries, rather than presenting an aspirational view of what CSR in developing countries should look like. For example, it is not proposed that legal and ethical responsibilities should get such a low priority, but rather that they do in practice.

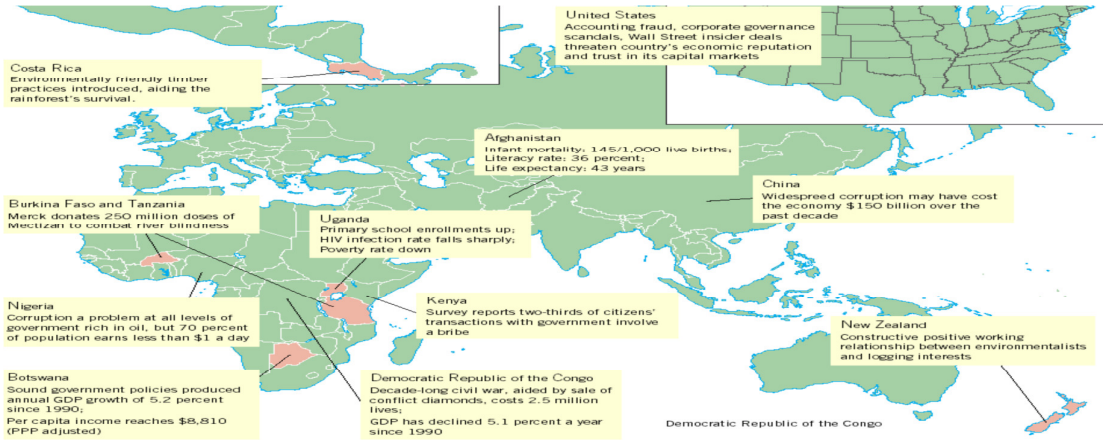
By contrast, if the study is to work towards an ideal CSR model for CSR in developing countries, we would argue that improved ethical responsibilities, incorporating good governance, should be assigned the highest CSR priority in developing countries. It is my contention that governance reform holds the key to improvements in all the other dimensions, including economic development, rule of law, and voluntary action. Hence, embracing more transparent, ethical governance practices should form the foundation of CSR practice in developing countries, which in turn will provide the enabling environment



ISSN 2076-9202

for more widespread responsible business (figure 8).

**Figure 8: Map of CSR in developing countries**




**Source:** World Bank's (2005)

## 4. Conclusion

From the outset, it should be recalled that this study focused on the demonstration of the management of a CSR in developing countries across the world for a sustainable development. The results gathered from this research allow us to highlight the essential ideas closely related to the two essential aspects of the field of the study analysis. As we can see from above, it has been about presenting, analyzing and interpreting the results to allow us to test the central research question and their different research hypotheses.

According to the different findings, this study is summarizing CSR in developing countries in the five distinctive characteristics: (i) CSR tend to be less formalized or institutionalized in terms of the CSR benchmarks commonly used in developed countries, i.e. CSR codes, standards, management systems and reports; (ii) where formal CSR is practiced, this is usually by large, high profile national and multinational companies, especially those with recognized international brands or those aspiring to global status; (iii) formal CSR codes, standards, and guidelines that are most applicable to developing countries tend to be issue specific (e.g. fair trade, supply chain, HIV/AIDS) or sector-led (e.g. agriculture, textiles, mining); (iv) In developing countries, CSR is most commonly associated with philanthropy or charity, i.e. through corporate social investment in education, health, sports development, the environment, and other community services and (v) making an economic contribution is often seen as the most important and effective way for business to make a social impact, i.e. through investment, job creation, taxes, and technology transfer.

Business often finds itself engaged in the provision of social services that would be seen as government's responsibility in developed countries, for example, investment in infrastructure, schools, hospitals, and housing.

The issues being prioritized under the CSR banner are often different in developing countries, for example, tackling HIV/AIDS, improving working conditions, provision of basic services, supply chain integrity, and poverty alleviation. Many of the CSR issues in developing countries present themselves as



ISSN 2076-9202

dilemmas or trade-offs, for example, development versus environment, job creation versus higher labor standards, and strategic philanthropy versus political governance.

The spirit and practice of CSR is often strongly resonant with traditional communitarian values and religious concepts in developing countries, for example, African humanism (ubuntu) in South Africa and harmonious society (xiaokang) in China. The focus on CSR in developing countries can be a catalyst for identifying, designing and testing new CSR frameworks and business models, for example, Praha lad's Bottom of the Pyramid model and Visser's CSR Model for Developing Countries.

## References

Baker, M. (2004) Corporate Social Responsibility: What does it mean? Available at: http://www.mallenbaker.net/csr/definition.php

Baskin, J. (2006). Corporate Responsibility in Emerging Markets. *Journal of Corporate Citizenship*, 24, winter: 29–47.

Blowfield, M. and Frynas, J. G. (2005). 'Setting New Agendas: Critical Perspectives on Corporate Social Responsibility in the Developing World'. *International Affairs*, 81(3): 499–513.

Clark, J., Cole, S., Curnow, R. and Hopkins, M. (1975) *Global Simulation Models*, John Wiley, New York.

Carroll, A. B. (1991). 'The Pyramid of Corporate Social Responsibility: Toward the Moral Management of Organizational Stakeholders'. *Business Horizons*, 34: 39–48.

Christensen, J., and Murphy, R. (2004). 'The Social Irresponsibility of Corporate Tax Avoidance: Taking CSR to the Bottom Line'. *Development*, 47(3): 37–44.

Dolan, C. S., and Opondo, M. (2005). Seeking Common Ground: Multi-stakeholder Processes in Kenya's Cut Flower Industry'. *Journal of Corporate Citizenship*, 18, summer: 87–98.

Fig, D. (2005). Manufacturing Amnesia: Corporate Social Responsibility in South Africa'. *International Affairs*, 81(3): 599–617.

Frynas, J. G. (2006). Corporate Social Responsibility in Emerging Economies'. *Journal of Corporate Citizenship*, 24, winter: 16–19.

Gabriel, P. P. (1972). 'MNCs in the Third World: Is Conflict Unavoidable?' *Harvard Business Review*. 50(4): 93–102.

Glaser, B.G. and Strauss, A.L.: 1967, The discovery of Grounded Theory: strategy for Qualitative Research (Weidenfed and Nicolson).

Graves, S. and Waddock, S. (1999) *Beyond Built to Last … Stakeholder Relations in 'Built-to-Last' Companies*, Boston College Carroll School of Management, Chestnut Hill, MA.

Hardcourt, W. (2004). 'Editorial: Is CSR Rewriting Development?' *Development*, 47(3): 1–2.

Hoffman, A. J. (2005). 'Climate Change Strategy: The Business Logic Behind Voluntary Greenhouse Gas Reductions'. *California Management Review*, 47(3): 21–46.



***ISSN 2076-9202***

Hess, D.: 1999 'Social Reporting: A reflexive law approach to corporate social responsiveness' Journal of Corporate Law, Fall, 25 (1), 41-85.

Hopkins, M. (1997) 'Defining indicators to assess socially responsible enterprises', *Futures*, Vol. 29, No. 7, pp.581–603.

Hopkins, M. (1999) *The Planetary Bargain – Corporate Social Responsibility Comes of Age*, Macmillan Press, Basingstoke.

Hopkins, M. (2003) *The Planetary Bargain – Corporate Social Responsibility Matters*, Earthscan, London.

Hopkins, M.: 2000, 'The measurement of corporate social responsibility' MHC International Limited News November 2000.

IMF (2006). *World Economic Outlook: Financial Systems and Economic Cycles*. Brussels: International Monetary Fund.

IoD (1992). *King Report on Corporate Governance in South Africa*. Johannesburg: Institute of Directors in Southern Africa.

- (2002). *King Report on Corporate Governance in South Africa*. Johannesburg: Institute of Directors in Southern Africa.

Ite, U. E. (2004). 'Multinationals and Corporate Social Responsibility in Developing Countries: A Case Study of Nigeria'. *Corporate Social Responsibility and Environmental Management*, 11(1): 1–11.

Jenkins, R. (2005). 'Globalization, Corporate Social Responsibility and Poverty'. *International Affairs*, 81(3): 525–40.

Johnson, M. (2004). 'Marks & Spencer Implements an Ethical Sourcing Program for its Global Supply Chain'. *Journal of Organizational Excellence*, 23(2): 3–16.

Kaufman, A., Tiantubtim, E., Pussayapibul, N., and Davids, P. (2004). 'Implementing Voluntary Labour Standards and Codes of Conduct in the Thai Garment Industry'. *Journal of Corporate Citizenship*, 13, spring: 91–9.

Kolk, A., and Van Tulder, R. (2002). 'Child Labour and Multinational Conduct: A Comparison of International Business and Stakeholder Codes'. *Journal of Business Ethics*, 36: 291–301.

Lockett, A., Moon, J., and Visser, W. (2006). 'Corporate Social Responsibility in Management Research: Focus, Nature, Salience, and Sources of Influence'. *Journal of Management Studies*, 43(1): 115–36.

London, T., and Hart, S. L. (2004). 'Reinventing Strategies for Emerging Markets: Beyond the Transnational Model'. *Journal of International Business Studies*, 35(5): 350–70.

Lund-Thomsen, P. (2004) Towards a Critical Framework on Corporate Social and Environmental Responsibility in the South: The Case of Pakistan. *Development*, 47(3): 106–113.

Malan, D. (2005) Corporate Citizens, Colonialists, Tourists or Activists? Ethical Challenges facing South African Corporations in Africa. Journal of Corporate Citizenship, 18, summer: 49–60.

Moon, J. (2002b). 'Corporate Social Responsibility: An Overview. In C. Hartley, *The International Directory of Corporate Philanthropy*. London and New York: Europa Publications, 3–14.

Mwaura, K. (2004). Corporate Citizenship: The Changing Legal Perspective in Kenya. Interdisciplinary CSR Research Conference, Nottingham, International Centre for Corporate Social Responsibility (ICCSR).



***ISSN 2076-9202***

Nielsen, M. E. (2005). 'The Politics of Corporate Responsibility and Child Labour in the Bangladeshi Garment Industry'. *International Affairs*, 81(3): 559–80.

Okana, "Course of Management", Catholic University of Congo, Kinshasa, 2011-2012.

Prahalad, C. K., and Hammond, A. (2002). 'Serving the World's Poor, Profitably'. *Harvard Business Review*, 80(9): 48–57.

Prasad, B. C. (2004). 'Globalisation, Free Trade and Corporate Citizenship in Pacific Forum Island Countries'. *Journal of Corporate Citizenship*, 13, spring: 65–76.

Prieto-Carron, M. (2004). 'Is there Anyone Listening? Women Workers in Factories in Central America, and Corporate Codes of Conduct'. *Development*, 47(3): 101–5.

Rangan, V. K., Quelch, J. A., Herrero, G., and Barton, B. (eds.) 2007. *Business Solutions for the Global Poor: Creating Social and Economic Value*. San Franciso: Jossey-Bass.

Reed, D. (2002). 'Corporate Governance Reforms in Developing Countries'. *Journal of Business Ethics*, 37: 223–47

Schmidheiny, S. (2006). 'A View of Corporate Citizenship in Latin America'. *Journal of Corporate Citizenship*, 21, spring: 21–4.

Schrage, E. J., and Ewing, A. P. (2005). 'The Cocoa Industry and Child Labour'. *Journal of Corporate Citizenship*, 18, summer: 99–112.

UN, (2006). *Millennium Development Goals Report 2006*. Brussels: United Nations.

UNDP, (2006). *Beyond Scarcity: Power, Poverty and the Global Water Crisis*. Brussels: United Nations Development Programe.

Visser, W.:

- (2005a). 'Corporate Citizenship in South Africa: A Review of Progress Since Democracy'. *Journal of Corporate Citizenship*, 18, summer: 29–38.

- (2005b). 'Is South Africa World Class in Corporate Citizenship?' in A. Freemantle (ed.), *The Good Corporate Citizen*. Johannesburg: Trialogue.

- (2006a). 'Research on Corporate Citizenship in Africa: A Ten-Year Review (1995–2005). In *Visser et al. (2000b)*.

- (2006b). 'Revisiting Carroll's CSR Pyramid: An African Perspective'. In *Pedersen and Huniche (2006)*, 29–56.

- (2007b). 'Revisiting Carroll's CSR Pyramid'. In *Crane and Matten*.

Visser, W. and Macintosh, A. (1998) A Short Review of the Historical Critique of Usury'. *Accounting, Business & Financial History*, 8(2): 175–89.

Vivarta, V., and Canela, G., (2006). Corporate Social Responsibility in Brazil: The Role of the Press as Watchdog. *Journal of Corporate Citizenship*, 21, spring: 95–106.



***ISSN 2076-9202***

WBCSD (2000). *Corporate Social Responsibility: Making Good Business Sense*. Geneva: WBCSD.

Willi, A. (2014). *Corporate Social Responsibility in Developing Country: An illustrate analysis*", University of Bath, September.

Wood, D. (1994) *Business and Society*, Harper Collins, New York.

World Bank (2005). *Investment Climate Survey*. Washington: World Bank.

- (2006) *World Development Report 2007: Development and the Next Generation*. Washington: World Bank.

WRI (2005). *World Resources 2005: The Wealth of the Poor: Managing Ecosystems to Fight Poverty*. Washington: D.C., World Resources Institute, UNDP, UNEP, World Bank.



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# A CASE STUDY FOR CUSTOMER ORIENTATION OF SALESPEOPLE IN ENERGY SECTOR

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**ABSTRACT**

Customer-orientedness of a salesperson has a very crucial impact on the longevity of business relationships as well as positively affecting customer decision making process. This study investigates the degree of customer-orientedness of salespeople while seeking to provide an overview for customer orientation of salespeople and the company by examining some factors, which have potential effects on salesperson performance. In order to measure the factors affecting customer-orientedness of a salesperson, Sales Orientation Customer Orientation (SOCO) Scale is mainly used. Hence, we involved SOCO scale in our questionnaire including several other specialized questions which further measure the effect of other important factors such as age, gender, tenure of salesperson, size of the organization the salesperson works for, number of customer accounts the salesperson is responsible of, sales bonus and premium offered and the number of years that salesperson works with the same customer. The survey study is conducted among 91 salespeople from Turkey most of whom work in energy sector. Bootstrapping method is mainly applied for data analyses. The purpose of our study is to shed some light on factors affecting salespeople's motivation on customer orientation for companies in energy sector to achieve a higher customer satisfaction which will eventually result in higher customer retention rates.

**Keywords:** Customer-orientation; SOCO Scale; Bootstrapping; Sales Motivation; Customer-oriented Behavior; Customer Satisfaction

## I.INTRODUCTION

The key role customers play in sales activities along with the technological advances of our era has reached a point where customers have a more refined conscience on their buying decisions and they have a direct influence on market dynamics. Hence, they hold more power in today's sales activities in several perspectives. Standard products, services and solutions do not appeal to customers since most of the companies already offer similar or superior products or services. For this reason, organisations should no longer aim profit-maximization only but should also take into consideration of today's technology-savvy and product-conscious consumer profile.



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Standard practices and limited perspectives fall into a suboptimal category today. It's understandable that organization's main goal for their existence is profit-maximization through their operations. According to Porter's generic strategies (1985), a company may follow two strategies in order to generate above-industry profit margins in order to achieve this goal: Cost leadership or differentiation. Organizations develop differentiation strategies on several dimensions varying from products or services with the goal of seeking advantage over competitors and offering one or more attributes widely valued by company's customers. However, it should not be underestimated that one of the sub items of differentiation is undoubtedly customer orientation and that it is a great tool for differentiating an organisation from its competitors by closely analyzing and focusing on rapidly changing wants and needs of customers and allocating necessary resources. Companies now implement customer relationship management systems into their business strategies in order to tactfully manage and leverage their relations with customers with an ultimate aim of achieving higher profitable business success.

Considering the importance of customer orientation as a focal point in today's business operations, the role of salespeople bears greater importance, as well. Salespeople being the main contact points of customers within a company, their sales attitudes are good indicators of whether their company is a customer–oriented company or not. Undoubtedly, customer-orientation is primarily driven by the overall attitude of company on this regard.

On the other hand, the fact that salespeople's job performance is mainly evaluated with the achieved percentage of sales targets should not be neglected. Especially considering that salespeople's net income is directly proportional with their sales performance in most cases, this could possibly lead to a conundrum for salespeople as to whether they should follow a customer-oriented or sales-oriented approach during their negotiations. Yet, we are in the age of relational selling and salespeople who aim to cultivate long-term partnerships with their customers. A critical challenge for salespeople in this trajectory is to determine the degree of their customer-orientation focus which leads to higher sales performance.

In our research, the factors affecting customer orientation of salespeople are analyzed by using SOCO (selling orientation – customer orientation ) scale of Saxe and Weitz (1982) as a basis to our survey with minor modifications and complementary questions added in our questionnaire containing such variables as age, gender, tenure of salesperson, size of the organization the salesperson works for, number of customer accounts the salesperson is responsible of, sales bonus and premium offered and the number of years that salesperson works with the same customer.

In our study, we mainly evaluated customer-orientedness of a salesperson on an individual level neglecting customer-orientation on a firm level. However, the majority of the literature has focused on customer orientation from organizational perspective in contrast to individual performance. When



*ISSN 2076-9202*

performance and SOCO have been assessed at firm level, the results have generally been inconclusive or weak. For this reason, other criteria should be taken into account, the most significant of which could be regarded as the standpoint of an organization towards customer-orientation in which a salesperson works for while considering customer-orientation at firm level (further elaborated in section 2 Literature Review).

This study seeks to reveal a significant relationship between the customer-orientedness of a salesperson with his/her incentives, experience, the number of customer accounts he/she is responsible from sales bonuses and the number of years with the same customer via questionairre in which original SOCO Scale is used. In this regard, bootstrapping method is mainly applied for data analyses. 91 salespeople with an average of 31 years old were surveyed and the findings were reported in results section from the customer-orientation point of view.

## II.LITERATURE REVIEW

Long-term business relationships prove to yield desirable results for organizations through customer loyalty and customer satisfaction which surely result in higher profits, increased sales figures, increasing market share and robust organizations. It is no wonder that loyal customers are less likely to switch and they make more purchases than similar non-loyal customers (Choi *et al*. 2013). Even though there are various measures contributing to sound financial performance of an organization, it should not be overlooked that financial performance can be improved through relationship between employee satisfaction, customer orientation, customer satisfaction, and customer loyalty (Homburg, Wieseke and Hoyer 2009).

The emphasis of sales has shifted over time from organizations to customers due to various reasons the most prominent of which could be the fact that technological advances and rapid digitalization enable consumers to control and shape market dynamics as they have gained great strength over companies. This has brought about an ever-growing focus on customers rather than solely aiming higher sales figures, profit maximization and increasing market share. Along with this focal shift, significance of selling types, salesperson types and scope of sales have gained an ever-growing attention in many of today's organizations primarily due to the reason that products are not necessarily the most important criteria for sales today: The most important criterion today is customer and anything and everything that is perceived as an added value to customer; their buying motives and habits, preferences, determinants of their buying decisions, sales channels that are mostly preferred among consumers, cost-performance index of a product/service, functionality, popularity, etc. This is the reason why the focus of a selling activity should absolutely necessarily revolve around such fundamental questions as what customers want, how they feel and behave, whether your organizations' products create a value to them, what is the expected value from your products/services, etc. Simply stated, targeting customer orientation not only on salesperson level, but also on company level is more vital than ever on achieving customer loyalty, customer retention,



ISSN 2076-9202

long-term business relationships and eventually achieving overall higher gains for today's organizations.

Customer orientation - sales orientation of salespeople is a topic that has been widely studied by academics for years. One of the earliest and most commonly used researches was done by Saxe and Weitz (1982) on this subject. They were inspired by the studies of early 1900's for the basis of constructing their well-known SOCO Scale. Reviewing the literature on this topic, there are numerous valuable researches conducted regarding SOCO Scale each of which focusing on a different dimension of sales. It is no doubt that there will always be new researches to come as sales will always be an interesting topic for sales and consumer researches mainly because it never ceases to evolve depending on changing needs and wants of consumers through the ages.

Along with numerous advances in technology as well as availability and convenient reach of information, customers are currently able to easily obtain information about product properties, prices, customer experiences etc. in as short time as a mouse click. Most significantly, they have the power of bargaining like they never had before; they can compare every product with competitors' in order to find out which product potentially creates maximum value and benefit for fulfilling their needs while economically remaining within bounds of their budget. Another significant aspect about today's competitive environment is that product features are almost identical offering almost the same level of functionality with a certain level of quality; for instance, there are numerous kinds of smart phones of different price ranges in the market. Consumer no longer seek for functionality alone, but also expect buying value, experience or even a social status along with a smart phone brand preference. It is a matter of consumer choice as to which brand he/she will choose depending on the value expected to be obtained. Considering that customers are naturally in the orient of all sales and marketing activities, it would not be wise to disregard this very vital fact of today's consumer profile. The differences in the market shares of products are not because of the functional features of the products but mainly due to the outlook of marketing and customer orientation of companies (Varinli, Yaras and Basalp 2009). Necessary emphasis should then be placed on customer orientation in order to achieve financial results on an organizational level. Customer-orientedness of a salesperson equally plays a major role in current fiercely competitive environment on an individual level.

The drivers of customer-oriented sales approach fundamentally come from personal characteristics of salesperson. Widmier (2002) found that salespeople with higher levels of empathic concern had correspondingly high levels of customer orientation. On the other hand, other variables on salesperson level such as tenure, the number of customer accounts assigned to salesperson, sales incentives and bonuses as well as size of organization are expected to contribute to customer-orientedness level of salespeople. For example, Dursun and Kilic found a positive relationship between market orientation of the organization and customer orientation of its marketers in their study which implies that developing a strong market orientation can benefit the organization by increasing its marketers' customer orientation



ISSN 2076-9202

(2010). In other words, the organizational culture on customer-orientedness is positively proportional on salesperson's attitudes and approaches towards their customers and prospects. This parallelism constitutes a perfect rationale considering that sales targets and strategies are given by organizations: each salesperson represents their own company along with its values and culture as well as the predetermined objectives given. This explains the reason why customer orientation of organization is positively related to customer orientation scores of Dursun and Kilic's study. Their study draws a great deal of parallelism with the study of Cross *et al.* regarding the influence of a company's customer orientation on the customer orientation of the salespeople (Cross *et al*. 2007). The study tests the impact of customer-orientation on buyer-seller relationship explaining it with the basic principles of relationship marketing: A salesperson's customer orientation completely mediates the relationship between company's customer orientation and salesperson performance. Thus, it is found that influence of a company's customer orientation on salesperson performance acts through the customer orientation of the salespeople.

Analyzing the factors of customer-orientedness from a different perspective, Mintu-Wimsatt and Gassenheimer argues that tenure in sales positions is inversely proportional with customer-orientedness of salespeople (Mintu-Wimsatt and Gassenheimer 2004). As discussed in the scholarly article, this stems from the fact that such significant catalysts as listening skills, job excitement and the will to establish a professional self-image are observed to be diminishing in time resulting in a more sales-oriented approach.

Similar to one of the proposed research questions in this study, Widmier's study (2002) also seeks to measure the effect of customer satisfaction-based sales incentives and sales volume-based sales incentives on the salesperson's customer orientation, and not surprisingly Widmier's finding in the research predicts that sales volume incentives had a negative effect on the salesperson's customer orientation whereas customer satisfaction-based sales incentives has a positive effect on the salesperson's customer orientation. This finding leads us to the conclusion that market-oriented firms need customer-oriented marketing professionals (Widmier 2002).

Singh and Koshy (2008) advocate a forthcoming approach criticizing Saxe and Weitz's SOCO Scale about its shortcoming as to what should be interpreted from the scale provided that a salesperson scores high on both customer-orientation and sales-orientation of the questionnaire. This point is open to discussions from many aspects: Scoring high on both ends of the scale could translate into a distinct sales competency if the salesperson can utilize either of these orientations when and/or as needed under different sales situations. This could be interpreted as a discrepancy of sales approach of salesperson, which could then be interpreted as an unfavorable attribute of the salesperson.



***ISSN 2076-9202***

**Table 1.** Summary of researches along with their methodologies and findings

| Author & Year | Concentration and Major Findings | Empirical / Conceptual | Measurement Model |
|---|---|---|---|
| Saxe and Weitz (1982) | Customer-oriented selling is related to the ability of the salespeople to help their customer and the quality of customer-salesperson relationships. | E | Factor Analysis, Pearson's Correlation Coefficient, Regression, Descriptive Statistics |
| Johnston et al. (1989) | Lack of initiative and poor planning and organisation are two of most important failure factors of salespeople | E | Survey, Factor Analysis, Descriptive Statistics |
| Banker et al. (1996) | This study investigated how competitive intensity, customer profile, and behavior-based control influenced the effectiveness of an outcome-based incentive plan supporting a customer-focused service strategy. | C | CONCEPTUAL |
| Scott Widmier (2002) | The impact of customer satisfaction-based incentives and personality characteristics on the customer orientation of salespeople is investigated. Sales volume incentives and job tenure were negatively related to customer orientation. Empathy moderated the effect of customer satisfaction and sales volume incentives on customer orientation. | E | Correlation Analysis, Multiple-regression Analysis, Chow's Test |
| Mintu-Wimsatt and Gassenheimer (2004) | Customer-orientedness, enthusiasm and listening skills diminish as experience brings reality to the job. Newly hired individuals come to the job with excitement, high morale, and an emphasis on establishing "an initial professional self-image. | E | An analysis of variance (ANOVA) |
| Jaramillo et al. (2007) | SOCO is positively related to salesperson job performance. Relationship between SOCO and salesperson job performance is tested to be not stronger for B2B compared to B2C. The relationship between SOCO and salesperson job performance is found not to be stronger for B2B compared to B2C. | E | Pearson's Correlation Coefficient |
| Cross et al. (2007) | A salesperson's customer orientation completely mediates the relationship between company customer orientation and salesperson performance. Thus, the influence of a company's customer orientation on salesperson performance acts through the customer orientation of the salespeople. | E | Pearson's Correlation Coefficient |
| Singh & Koshy (2008) | A new definition of customer orientation is proposed as it is believed that such important aspects as creating customer value, building long-term customer relationships, emphasis on services before-during and after sales, and increased efforts to understand and meet latent customer needs. | C | CONCEPTUAL |
| Dursun and Kilic (2010) | A positive relationship between market orientation of the organization and customer orientation of its marketers is found which implies that developing a strong market orientation can benefit the organization by increasing its marketers' customer orientation. | E | Structural Equation Modeling (SEM) analysis via LISREL |
| Dursun and Kilic (2010) | Higher levels of customer orientation result in higher levels of relationship development. There is a positive and significant relationship between the salesperson's customer Orientation and the development of buyer-seller relationship | C | CONCEPTUAL |
| Poujol et al. (2012) | Customer satisfaction with the salesperson is proportional to the extent to which the salesperson adopts a customer-oriented attitude aiming at understanding and satisfying customer needs better than the competition. | E | Survey, Structural Equation Modeling (SEM) analysis |
| J. Garry Smith (2012) | The influence of such traits as agreeableness and openness along with forgiveness and gratitude traits were tested. Results showed market orientation, gratitude, and forgiveness had positive and Openness a negative relationship with Customer Orientation. Agreeableness had no significant relationship with Customer Orientation or Sales Orientation. Forgiveness was the only variable that had a negative relationship with Sales Orientation and a positive relationship with Customer Orientation | E | Path analysis, a type of structural equation modeling (SEM) |
| Wang and Zhang (2015) | The relationship between customer orientation, customer value and behavioral intentions is tested. C2C e-sellers should establish strong relational customer orientation between e-shops and customers, and sellers should transform customer orientation idea into proactive customer orientation business philosophy. | E | Structural Equation Modeling (SEM) |

### *2.1 SOCO Scale*

Prior to explaining our methodology and survey details, it would be helpful to briefly define *customer orientation* concept in Saxe and Weitz's terms in their study about SOCO Scale: Saxe and Weitz (1982)



*ISSN 2076-9202*

were pioneers of measuring customer orientation and sales orientation of salespeople. According to Saxe and Weitz (1982), customer-oriented selling can be viewed as a practice of the marketing concept at the level of individual salesperson and customer. They found that customer-orientation and sales performance were directly related to one another. In other words, sales performance cannot be considered separately from individual relationship of salesperson with their customer and thus, success factor in sales performance is fundamentally dependent on salespeople, their business acumen and their attitude towards managing customer relationships while negotiating sales deals.

In customer-oriented selling, the most important factor is not closing the sale at all costs; instead, salespeople's priority is understanding the individual needs of customers in order to satisfy their customers' needs by offering the best possible alternative/solution, which may also result in a decrease of sales gains for the sake of acquiring a long-term business relationship, however, this outlook on acquiring a long-term business relationship is then established on trust and good-will, which would potentially last longer than any transactional business relationship. On the other hand, sales orientation primarily concentrates on sales figures and closing deals without prioritizing customer needs or ensuring the best solution is provided that meets customers' needs.

In this perspective, SOCO is designed as a 24-item scale (12 positively worded and 12 negatively worded statements) which was developed to measure two factors; the focus on sales orientation vs. customer orientation of a salesperson through several settings which aim to evaluate salesperson's willingness to help customers, understand and consider their needs, offer appropriate products/solutions/services to appropriate problems of customers and their competency and adequacy in properly explaining the products/services of his organization to customers. The 12 positively-stated items are given first in descending order of item-total correlations, followed by 12 negatively-stated items. The surveys were distributed to 133 salespeople 95 of which gave valid responses. Apart from the SOCO Scale questions, the respondents also were given demographic questions as well as 18 more questions intended to measure situational variables in order to examine the nomological validity of SOCO Scale.

SOCO Scale has been highly used and adapted over the years since it was first developed. It has been used in a variety of sectors such as real estate, advertising, insurance and for different profiles of consumers including consumers of retail products (Wagenheim and Rood 2010). The reason why it gained such popularity for scholarly researches may be primarily because it is reliable and valid on both customer perspective and salesperson perspective. Besides, the scale offers concise and explicit statements that enable researchers bring forward more concrete results. However, Thomas, Soutar and Ryan (2001) proposed a shortened form of SOCO scale revising 24-item scale to a 10-item scale in their study which consisted of five items each for measuring customer orientation and sales orientation sections thus aiming to reduce response fatigue and acquiescence bias while achieving parsimony (Periatt, LeMay and Chakrabarty 2004). Periatt, LeMay and Chakrabarty (2004) conducted their study in business-to-business services with logistics professionals in an attempt to cross-validate the proposed



ISSN 2076-9202

shortened version of Thomas *et al.*'s SOCO Scale from its aspects of validity, reliability and parsimony and the results found substantial support for the modified scale, demonstrating that it is both parsimonious and effective. Conduit and Mavondo (2001) also developed a shortened form of original SOCO Scale in their study conducted for measuring the impact of relationship between internal customer orientation and customer orientation within three organizations with extensive international marketing operations.

Being the first published meta-analysis of SOCO Scale, Jaramillo *et al.*'s (2007) conducted a meta-analysis of SOCO Scale with an aim to synthesize the findings from the earlier empirical studies to identify the direction and the strength of relationship between SOCO and salesperson job performance as well as aiming to investigate such moderators as customer type (business or end-user) and type of job performance measure used (subjective or objective) while measuring this relationship Jaramillo *et al.*'s (2007). The key finding of the study shows a high job performance of salesperson is achieved when customer-orientedness of a salesperson is high.

As previously emphasized, SOCO Scale is a highly-used and adapted scale. Nonetheless, it has its limitations in explaining on correctly measuring salesperson's customer orientation on a broad fashion. As Singh and Koshy (2008) suggest, SOCO Scale does not interpret such a case where a particular salesperson is found to be high on selling orientation as well high on customer orientation. Saxe and Weitz do not elaborate on whether this would be an ideal case for a salesperson indicating he/she can utilize both orientations depending on different sales situations. As one of the recent criticisms of SOCO Scale, Wachner, Plouffe and Grégoire (2009) empirically suggest that specific selling skills can impact sales performance directly as well as moderate the impact that both a "sales orientation" and a "customer orientation" ultimately have on sales performance.

## III.METHODOLOGY

### *3.1 Problem Definition*

There has been several versions of SOCO Scale used and modified in various scholarly articles some of which are already referred in our study. We aim to analyze salespeople from a customer-orientedness point of view as we believe it has more impact in our increasingly competitive environment than it did when SOCO scale was first introduced by Saxe and Weitz in 1982. It is important to focus on other factors such as age, gender, tenure of salesperson, size of the organization the salesperson works for, number of customer accounts the salesperson is responsible of, sales bonus and premium offered as well as the number of years that salesperson works with the same customer in order to correctly determine which parameters are catalysts or determinants of customer-oriented approach of a salesperson.

We believe that age and tenure of a salesperson could have a direct impact on the degree of customer-orientedness of a salesperson since experience increases sensibility on customer needs and



ISSN 2076-9202

helps salesperson gain better customer insight on their buying behaviors, wants, needs and preferences. However, we also believe that the number of customer accounts a salesperson is responsible of could potentially decrease the customer-orientedness level of salesperson since he/she has to focus on a great number of customers, which results in less empathy and sensitiveness to each and every customer. This leads to inevitable shifts in the focus of salesperson from customer-orientation to sales-orientation in the long run. Size of organization, however, could either negatively or positively affect customer-orientation of a salesperson whereas performance based payments could negatively affect customer-orientedness of a salesperson as it would eventually stimulate a sales-driven approach where salesperson focuses on earning more by selling more, not considering customer needs and wants. Number of years a salesperson works with the same customer is an important factor positively affecting customer-oriented approach of a salesperson: there is a certain level of intimacy and acquaintance achieved over time between customer and salesperson. Hence, salesperson understands and appreciates the needs of his/her customer and tends to be more customer-oriented rather than being sales-oriented.

### *3.2 Research Questions*

Following research questions are established for our problem defined above:

**RQ1:** ***Does the customer orientation of salespeople increase as the sales experience of salespersons' increases?***

Sales experience of a salesperson positively affects his/her customer orientation because he/she understands the fact that customer-oriented sales approach will prove much profitable in the long run. Sales-oriented approach could win several deals; however, it will surely be a customer-oriented approach that will win a loyal customer at the end of the day.

**RQ2:** ***Does the customer orientation of salespeople decrease as the number of customers which salespeople is responsible for increases?***

Number of customers a salesperson is responsible for is an important factor determining customer orientation of the salesperson: when such focus factors as time, effort and availability for each customer account are divided between many customers, the salesperson tends to be more sales-oriented rather than having a motivation for listening and finding the best solution for each of his/her customers. The focus generally becomes sales orientation eventually. For that reason, organizations should calculate and assign an optimal number of customer accounts for each salesperson in order to gain loyal customers.

**RQ3:** ***Does the customer orientation of salespeople increase as the years spent with same customers increase?***



***ISSN 2076-9202***

We believe that a certain level of intimacy and acquaintance is achieved over time between customers and salespeople. Hence, salesperson tends to better understand and appreciate the needs of his/her customer and tends to be more customer-oriented rather than being sales-oriented.

**RQ4:** ***Does performance based payment of salespeople negatively affect customer orientation?***

Sales bonuses and premiums are great motivators for salespeople, yet, they could also have a negative impact on customer-orientedness of salespeople. The idea of earning more via bonuses and premiums could trigger a sales-oriented approach.

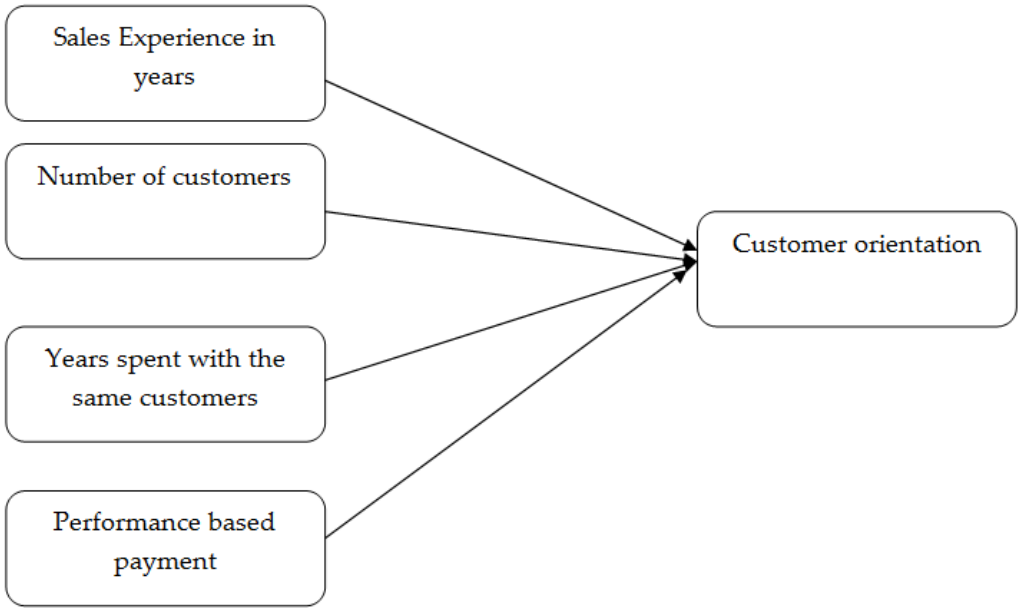


**Figure 1**. Research Model

**Figure 1** presents conceptual research model including four inputs, which are given and defined below, that directly determine the degree of customer-orientedness of a salesperson.

***Sales experience (Input 1)*** is directly proportional with the degree of customer-orientedness of a salesperson: the customer orientation increases as the sales experience of a salesperson increases.

***Number of customers that a salesperson is responsible of (Input 2)*** adversely affects customer-orientation of a salesperson. That is, higher number of customer accounts decreases the time and effort spent on each customer for finding the best solution via sales activities, thus the customer-orientedness of a salesperson decreases or even shifts towards a more sales-oriented approach over time.

***Years spent with the same customer (Input 3)*** positively triggers a higher customer-oriented approach primarily due to a level of intimacy achieved through years. Thus, we predict a positive relationship between two factors.

***Performance-based payment processes (Input 4)*** adversely affects customer-orientation of a salesperson: the possibility of a potentially higher variable income triggers a more sales-oriented approach on salespeople towards their customers in most sales situations. Hence,



ISSN 2076-9202

customer-orientedness severely decreases where higher bonuses and sales premiums are offered.

Our output is ***customer orientation***: The critical point in customer orientation is achieving and retaining long-term customer-relations instead of transactional relationships with the customers while prioritizing the needs and wants of the customer. Our output can be regarded as a dependent variable.
The four inputs and output can be regarded as independent variables and dependent variable, respectively. The data of four inputs and output are analyzed in order to evaluate their effects on customer orientation of salespeople and the findings are discussed and further explained in the results and conclusion sections.

### *3.3 Bootstrapping*

Bootstrap is a tool for calculating bias, standard errors and confidence intervals of parameter estimates. It does so by generating a set of new datasets by sampling individuals with replacement from the original dataset, and fitting the model to each new dataset.
We utilized IBM SPSS 21 version to conduct bootstrapping, which is an efficient way to ensure that analytical models are reliable and having accurate results. Moreover, there are some advantages which are listed as follows:

1. Estimating the sampling distribution of an estimator by re-sampling with replacement from the original sample quickly and easily.
2. Creating alternate versions of a data set for a more accurate view of what is likely to exist in the population.
3. Detection of outliers and reduction in the impact of outliers and anomalies, helping to ensure the stability and reliability of the models.
4. Estimation of the standard errors and confidence intervals of a population parameter.

After data collection, we interested in the properties of the population from which we took the sample. We made inferences about these population parameters by using estimates computed from the sample. We handled bootstrapping as a methodology for deriving robust estimates of standard errors and confidence intervals for estimates.

## IV.CASE STUDY

### *4.1 Sampling Procedure*

A survey was performed using simple random sampling method. In simple random sampling method, each subject selected randomly has an equal probability of being selected from a list of all population units.
In the **Appendix**, questionnaire entitled as “Customer Orientedness of Salespeople”, which is established for this study, is given. The questionnaire was sent to approximately 200 people via internet. 91 of them responded the survey questions. The respondents consist of 91 salespeople mainly from Turkey’s energy sector.



***ISSN 2076-9202***

Considering the dynamics of Turkish culture and probable sensitivity of respondents, private information such as names of respondents and their company were not required.

### *4.2 Data Collection*

The questionnairre is modified from original SOCO survey (Saxe and Weitz 1982) in the following way: In the survey, 24 questions of the original SOCO Scale are utilised for their distinct quality and reliability of evaluating sales orientation-customer orientation of salespeople with their positively and negatively-stated questions. Moreover, the questions about independent variables were added to the beginning of the survey.

The SOCO scale (Sales Orientation-Customer Orientation) was prepared to measure the degree to which a salesperson is committed to customer-oriented selling. The SOCO scale consists of 24 items about specific actions a salesperson might take when communicating with customers. The items are scored on 9-point scale ranging from true for none of my customers—NEVER to true for all my customers—ALWAYS. Negatively stated items were reversely scored, and a total score can be calculated by summing up the item scores.

The output data is the sum of original 24 questions of SOCO Scale as well as four inputs suggested in our study. Our inputs are: ***Sales experience (Input 1)*** which indicates that the sales experience of salesperson is directly proportional with the degree of customer-orientedness; ***Number of customers that a salesperson is responsible of (Input 2)*** which indicates that higher number of customer accounts decrease the time and effort spent on each customer resulting in a less customer-orientation of salesperson; ***Years spent with the same customer (Input 3)*** which indicates a positive relationship between the salesperson and a customer-oriented approach; ***Performance-based payment processes (Input 4)*** which indicate a negative relationship between salesperson and a customer-oriented approach since the possibility of a potentially higher variable income triggers a more sales-oriented approach on salespeople towards their customers in most sales situations. Notably, the four inputs can be regarded as independent variables whereas the output can be regarded as a dependent variable.

## V.RESULTS

Questionnaire's total respondents are 91 salespeople, involving 10 female and 81 male. The average sales experience of respondents is 13 years. The average number of customers which the respondents are responsible for is 31. The average variable income based on sales performance of salespeople is 22%.

SPSS (version, 21) is utilized for data analyses.



ISSN 2076-9202

**Table 2.** Summary of Data for four Inputs & Output

| Respondents | Sales experience (Input 1) | Number of customers that a salesperson is responsible of (Input 2) | Years spent with the same customer (Input 3) | Performance-based payment processes (Input 4) | Scores (Output) |
|---|---|---|---|---|---|
| 1 | 18 | 50 | 10 | 20 | 58 |
| 2 | 6 | 50 | 4 | 0 | 23 |
| 3 | 3 | 50 | 3 | 13 | 57 |
| 4 | 25 | 5 | 16 | 30 | 84 |
| 5 | 15 | 15 | 10 | 0 | 71 |
| 6 | 2 | 50 | 1 | 2 | 59 |
| 7 | 20 | 15 | 3 | 20 | 58 |
| 8 | 15 | 10 | 5 | 0 | 94 |
| 9 | 10 | 30 | 25 | 20 | 59 |
| 10 | 16 | 50 | 3 | 20 | 60 |
| 11 | 15 | 20 | 10 | 5 | 53 |
| 12 | 15 | 10 | 3 | 25 | 65 |
| 13 | 11 | 50 | 3 | 35 | 51 |
| 14 | 18 | 50 | 15 | 0 | 81 |
| 15 | 13 | 50 | 10 | 20 | 72 |
| 16 | 9 | 5 | 9 | 25 | 86 |
| 17 | 4 | 50 | 2 | 25 | 65 |
| 18 | 15 | 5 | 5 | 40 | 62 |
| 19 | 3 | 5 | 2 | 15 | 37 |
| 20 | 20 | 50 | 20 | 0 | 64 |
| 21 | 20 | 4 | 3 | 33 | 63 |
| 22 | 2 | 20 | 2 | 2 | 96 |
| 23 | 4 | 2 | 4 | 15 | 34 |
| 24 | 25 | 50 | 20 | 10 | 75 |
| 25 | 16 | 50 | 8 | 40 | 58 |
| 26 | 16 | 50 | 11 | 0 | 78 |
| 27 | 20 | 50 | 5 | 50 | 89 |
| 28 | 19 | 8 | 7 | 30 | 63 |
| 29 | 23 | 12 | 8 | 35 | 72 |
| 30 | 5 | 45 | 5 | 30 | 45 |
| 31 | 25 | 30 | 10 | 20 | 43 |
| 32 | 6 | 25 | 15 | 0 | 65 |



*ISSN 2076-9202*

| | | | | | |
|---|---|---|---|---|---|
| 33 | 3 | 7 | 5 | 67 | 54 |
| 34 | 4 | 8 | 7 | 0 | 59 |
| 35 | 14 | 50 | 1 | 10 | 44 |
| 36 | 25 | 25 | 10 | 50 | 40 |
| 37 | 15 | 19 | 5 | 10 | 85 |
| 38 | 15 | 20 | 5 | 11 | 69 |
| 39 | 18 | 20 | 10 | 20 | 59 |
| 40 | 16 | 12 | 6 | 25 | 52 |
| 41 | 20 | 12 | 7 | 0 | 91 |
| 42 | 20 | 45 | 9 | 35 | 54 |
| 43 | 25 | 50 | 15 | 30 | 69 |
| 44 | 25 | 50 | 15 | 20 | 76 |
| 45 | 18 | 13 | 6 | 35 | 51 |
| 46 | 19 | 15 | 4 | 50 | 67 |
| 47 | 7 | 5 | 1 | 7 | 69 |
| 48 | 5 | 50 | 4 | 30 | 65 |
| 49 | 4 | 30 | 3 | 0 | 48 |
| 50 | 5 | 25 | 3 | 10 | 62 |
| 51 | 2 | 25 | 1 | 16 | 47 |
| 52 | 11 | 50 | 6 | 15 | 27 |
| 53 | 15 | 50 | 2 | 20 | 62 |
| 54 | 9 | 50 | 6 | 10 | 66 |
| 55 | 6 | 50 | 4 | 50 | 58 |
| 56 | 15 | 3 | 15 | 35 | 50 |
| 57 | 5 | 10 | 2 | 1 | 68 |
| 58 | 11 | 35 | 5 | 0 | 51 |
| 59 | 6 | 50 | 3 | 0 | 59 |
| 60 | 7 | 50 | 3 | 0 | 75 |
| 61 | 8 | 50 | 7 | 10 | 45 |
| 62 | 19 | 10 | 10 | 40 | 69 |
| 63 | 20 | 50 | 3 | 5 | 54 |
| 64 | 16 | 50 | 8 | 55 | 71 |



*ISSN 2076-9202*

| Respondents | Sales experience (Input 1) | Number of customers that a salesperson is responsible of (Input 2) | Years spent with the same customer (Input 3) | Performance-based payment processes (Input 4) | OUTPUT |
|---|---|---|---|---|---|
| 65 | 3 | 35 | 3 | 35 | 49 |
| 66 | 16 | 30 | 8 | 35 | 70 |
| 67 | 1 | 5 | 1 | 8 | 67 |
| 68 | 16 | 12 | 8 | 25 | 51 |
| 69 | 20 | 50 | 10 | 30 | 84 |
| 70 | 20 | 50 | 1 | 10 | 55 |
| 71 | 12 | 35 | 12 | 1 | 70 |
| 72 | 8 | 10 | 5 | 0 | 58 |
| 73 | 10 | 11 | 5 | 25 | 46 |
| 74 | 13 | 50 | 13 | 10 | 70 |
| 75 | 15 | 20 | 7 | 50 | 53 |
| 76 | 5 | 20 | 3 | 20 | 67 |
| 77 | 6 | 50 | 2 | 10 | 67 |
| 78 | 25 | 11 | 10 | 1 | 53 |
| 79 | 19 | 30 | 5 | 20 | 42 |
| 80 | 25 | 50 | 5 | 90 | 84 |
| 81 | 15 | 50 | 4 | 50 | 40 |
| 82 | 13 | 50 | 4 | 40 | 55 |
| 83 | 15 | 50 | 10 | 50 | 78 |
| 84 | 13 | 40 | 6 | 50 | 26 |
| 85 | 25 | 34 | 8 | 40 | 66 |
| 86 | 18 | 10 | 15 | 40 | 88 |
| 87 | 15 | 50 | 2 | 25 | 48 |
| 88 | 3 | 21 | 3 | 30 | 39 |
| 89 | 6 | 33 | 6 | 0 | 86 |
| 90 | 25 | 50 | 25 | 30 | 70 |
| 91 | 12 | 10 | 6 | 30 | 63 |

**Table 2** shows summary of data for four inputs & output.

**Table 3, Table 4** and **Table 5** are constructed from SPSS 21 outputs.



*ISSN 2076-9202*

**Table 3.** Descriptive Statistics

| | | Statistic | Std. Error | Bootstrap[a] | | | |
|---|---|---|---|---|---|---|---|
| | | | | Bias | Std. Error | 95% Confidence Interval | |
| | | | | | | Lower | Upper |
| | N | 91 | | 0 | 0 | 91 | 91 |
| | Range | 24.00 | | | | | |
| | Minimum | 1.00 | | | | | |
| | Maximum | 25.00 | | | | | |
| | Mean | 133.626 | | -.0312 | .7356 | 118.132 | 148.236 |
| | Std. Deviation | 705.930 | | -.05204 | .36542 | 630.444 | 774.127 |
| | Variance | 49.834 | | -.599 | 5.121 | 39.746 | 59.927 |
| | Skewness | -.028 | .253 | -.001 | .146 | -.318 | .254 |
| Input1 | Kurtosis | -1.065 | .500 | .026 | .163 | -1.302 | -.670 |
| | N | 91 | | 0 | 0 | 91 | 91 |
| | Range | 48.00 | | | | | |
| | Minimum | 2.00 | | | | | |
| | Maximum | 50.00 | | | | | |
| | Mean | 310.110 | | -.0224 | 19.036 | 271.333 | 346.701 |
| | Std. Deviation | 1.809.757 | | -.11978 | .60244 | 1.678.224 | 1.907.778 |
| | Variance | 327.522 | | -3.958 | 21.567 | 281.643 | 363.962 |
| | Skewness | -.169 | .253 | .002 | .186 | -.534 | .224 |
| Input2 | Kurtosis | -1.661 | .500 | .041 | .107 | -1.787 | -1.385 |
| | N | 91 | | 0 | 0 | 91 | 91 |
| | Range | 24.00 | | | | | |
| | Minimum | 1.00 | | | | | |
| | Maximum | 25.00 | | | | | |
| | Mean | 69.780 | | -.0216 | .5500 | 59.780 | 81.316 |
| | Std. Deviation | 513.588 | | -.06954 | .55122 | 401.560 | 616.958 |
| | Variance | 26.377 | | -.406 | 5.622 | 16.125 | 38.064 |
| | Skewness | 1.458 | .253 | -.054 | .275 | .811 | 1.923 |
| Input3 | Kurtosis | 2.349 | .500 | -.187 | 1.201 | -.006 | 4.748 |
| | N | 91 | | 0 | 0 | 91 | 91 |
| Input4 | Range | 90.00 | | | | | |



ISSN 2076-9202

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Minimum | .00 | | | | | |
| | Maximum | 90.00 | | | | | |
| | Mean | 220.000 | | -.0238 | 19.245 | 184.069 | 260.220 |
| | Std. Deviation | 1.825.864 | | -.17752 | 155.992 | 1.532.812 | 2.131.530 |
| | Variance | 333.378 | | -4.020 | 57.058 | 234.951 | 454.342 |
| | Skewness | .812 | .253 | -.093 | .318 | .129 | 1.288 |
| | Kurtosis | .890 | .500 | -.400 | 1.097 | -1.134 | 2.573 |
| | N | 91 | | 0 | 0 | 91 | 91 |
| | Range | 73.00 | | | | | |
| | Minimum | 23.00 | | | | | |
| | Maximum | 96.00 | | | | | |
| | Mean | 615.495 | | -.0540 | 15.751 | 583.759 | 643.624 |
| | Std. Deviation | 1.528.998 | | -.15487 | 110.389 | 1.296.043 | 1.738.622 |
| | Variance | 233.784 | | -3.495 | 33.525 | 167.973 | 302.281 |
| | Skewness | -.047 | .253 | .013 | .201 | -.436 | .375 |
| Output | Kurtosis | -.005 | .500 | -.009 | .330 | -.590 | .736 |
| Valid N (listwise) | N | 91 | | 0 | 0 | 91 | 91 |

a. Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples

According to **Table 3**, Input 4, which represents performance-based payment processes, has the highest discrepancy along with having the largest confidence interval. This could be interpreted as the perception differences of performance-based payments on customer orientation among the respondents.

**Table 4.** Outliers

| Obs | TS | Fit | Resid | Std | Resid |
|---|---|---|---|---|---|
| 2 | 23 | 58,11 | -35,11 | -2,41 | R |
| 8 | 94 | 64,33 | 29,67 | 2,04 | R |
| 9 | 59 | 69,88 | -10,88 | -0,83 | X |
| 22 | 96 | 57,18 | 38,82 | 2,67 | R |
| 27 | 89 | 59,37 | 29,63 | 2,05 | R |
| 33 | 54 | 54,07 | -0,07 | -0,01 | X |
| 52 | 27 | 59,67 | -32,67 | -2,22 | R |
| 80 | 84 | 57,67 | 26,33 | 1,96 | X |
| 84 | 26 | 57,88 | -31,88 | -2,19 | R |



ISSN 2076-9202

**Table 4** reports outliers, which are extreme values or observations for respondents who damage to build reasonable model to reveal relationship between four inputs on output customer orientation. In statistics, abnormal observations are known as outliers. We detected that 2th,8th, 9th, 22th, 27th, 33th,52th, 80th and 84th respondents are answered questions abnormally in comparison to other respondents.

**Table 5.** Effect of Four Inputs on Output

| Variable | Factor1 | Factor2 | Factor3 | Factor4 |
|---|---|---|---|---|
| 1 | 0,505 | -0,234 | -0,033 | -0,023 |
| 2 | -0,044 | 0,006 | 0,035 | 1,004 |
| 3 | 0,698 | 0,272 | -0,149 | -0,035 |
| 4 | -0,109 | -0,906 | 0,026 | -0,006 |
| TS | -0,143 | -0,033 | 1,035 | 0,034 |

According to **Table 5**, it is possible to comprehend that Input 1 and Input 2 have negative impacts on output which is customer orientation. On the other hand, Input 3 and Input 4 has positive impact on output which is customer orientation.

Considering the significance of achieving a long-term business relationship with customers in B2B markets/sectors for the longevity of fruitful business, we propose it is more important to have a more in-depth understanding of the main motivation drivers of salespeople towards a more customer-oriented selling approach. The findings of our research revealed that sales experience (Input 1) and number of customers that a salesperson is responsible of (Input 2) have negative impacts on customer orientation, which refers to a decreased customer orientation or in other words an increased sales orientation of salespeople. The finding opposes our proposed model of related input regarding sales experience of salespeople positively affecting customer orientedness (Input 1) whereas Input 2 proves to be a predictor of a low level of customer orientation of salespeople provided that the number of customers a salesperson is responsible of is high. On the other hand, years spent with the same customer (Input 3) and performance-based payment processes (Input 4) have a positive impact on customer orientation: While Input 3 positively predicts a customer-oriented sales approach, performance-based payment processes (Input 4) indicate a negative relationship between salesperson and a customer-oriented approach since the possibility of a potentially higher variable income triggers a more sales-oriented approach rather than a customer-oriented one.

## VI.CONCLUSION

We handled bootstrapping as a methodology for deriving robust estimates of standard errors and confidence intervals for estimates. It may also be used for constructing hypothesis tests. Bootstrapping



*ISSN 2076-9202*

technique is useful as an alternative methodology to parametric estimates when the assumptions of those methods are in doubt (as in the case of regression models with heteroscedastic residuals fit to small samples), or where parametric inference is impossible or requires very complicated formulas for the calculation of standard errors (as in the case of computing confidence intervals for median, quartiles, and other percentiles).

The findings of our research suggest managerial implications to businesses today. First and foremost, common rationale which is also what our research question proposes regarding sales experience of salespeople positively affecting customer orientedness (Input 1) is confuted by our finding which proves an opposite rationale suggesting that customer orientation of salespeople actually decreases as sales experience of salespeople increases. This could be an opportunity for organizations today to reconsider their keen search on hiring the most experienced employees for sales positions for the purpose of achieving the best sales figures instead of being willing to offer sales positions to junior candidates. The number of customers that a salesperson is responsible of (Input 2) has negative impacts on customer orientation, which refers to a decreased customer orientation of salespeople. This finding proves to be a predictor of low customer orientation as parallel to our proposed model of related input. An increased number of customer accounts that a salesperson is responsible of could pose a great risk to a long-lasting business relationship with customers of a firm since the salesperson might not possibly have time and motivation to focus more on his/her customers' needs, but achieving his/her sales targets. On the other hand, years spent with the same customer (Input 3) and performance-based payment processes (Input 4) have a positive impact on customer orientation. As suggested in our study, years spent with the same customer plays a key role in long term business relationships and it results in a trust environment that salesperson and customer mutually builds. As a result, organization/brand naturally becomes a preferred choice of a customer thanks to a soundly built relationship between the salesperson and customer. While Input 3 positively predicts a customer-oriented sales approach, performance-based payment processes (Input 4) indicate a negative relationship between salesperson and a customer-oriented approach since the possibility of a potentially higher variable income triggers a more sales-oriented approach rather than a customer-oriented one. In other words, personal interests of a salesperson might take precedence over his/her customer orientation focus.

The reasons behind these findings can greatly vary; several of the reasons can be listed as follows: The number of the respondents could be comparatively insufficient for obtaining a significant parallelism and/or relationship between the customer-orientedness of a salesperson. The reliability of our research could be increased by obtaining higher number of respondents. The profiles of relevant respondents could have remained within the same or similar industry and age group which could possibly affect the results. The survey could be conducted with a larger sample size. The cultural differences could be taken into account while designing the survey questionnaire and the original SOCO Scale used in our study could be adapted with higher consideration of archetypical Turkish cultural attitudes in order to obtain and interpret more meaningful results. The independent variables could be structured with different scales for



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further research studies. SOCO Scale can be further adapted by minimizing or diversifying the original scale questions as well as adding more tailor-made questions from a culture-specific point of view. For further directions, this study can be extended by increasing the number of independent variables in order to have more explanatory models. Interaction effects of our inputs can also be examined.

## REFERENCES

**[1]** Porter, M. E. (1985). Competitive Advantage: Creating and Sustaining Superior Advantage, New York, USA: The Free Press.

**[2]** Saxe, R., & Weitz, B. A. (1982). The SOCO scale: A measure of the customer orientation of salespeople. *Journal of Marketing Research*, 343-351.

**[3]** Choi, S. L., Wan, K., Wan, I., Siti, Z. A. R., Kat, B. H., & Lee, Y. J., (2013). Sustaining Customers' Loyalty: A Survey of a Coating Resins Manufacturer. *Journal of Scientific & Industrial Research*, 72, 731-734.

**[4]** Homburg, C., Wieseke, J., & Hoyer, W. D. (2009). Social identity and the service–profit chain. *Journal of Marketing*, *73*(2), 38-54.

**[5]** Varinli, I., Yaras, E. & Basalp, A. (2009) Perceived Performance Selling Orientation and Customer Orientation As An Indicator of Emotional Intelligence of Salepeople. *C.Ü. İktisadi ve İdari Bilimler Dergisi*. 10, 159-174.

**[6]** Widmier, S. (2002). The effects of incentives and personality on salesperson's customer orientation. *Industrial Marketing Management*, *31*(7), 609-615.

**[7]** Dursun, T., & Kilic, C. (2010). Market Orientation as a Strategic Driver of Individual Customer Orientation. *Journal of Global Business Management*, *6*(2), 1.

**[8]** Cross, M. E., Brashear, T. G., Rigdon, E. E., & Bellenger, D. N. (2007). Customer orientation and salesperson performance. *European Journal of Marketing*, *41*(7/8), 821-835.

**[9]** Mintu-Wimsatt, A., & Gassenheimer, J. B. (2004). The problem solving approach of international salespeople: the experience effect. *Journal of Personal Selling & Sales Management*, *24*(1), 19-25.

**[10]** Singh, R. & Koshy, A. (2008). *Salesperson's Customer Orientation: A Reconceptualization and a New Definition*, Indian Institute of Management Ahmedabad. 1-53, Ahmedabad

**[11]** Johnston, M. W., Hair Jr, J. F., & Boles, J. (1989). Selling & Sales Management in Action: Why Do Salespeople Fail?. *Journal of Personal Selling & Sales Management*, *9*(3), 59-64.

**[12]** Banker, R. D., Lee, S. Y., Potter, G., & Srinivasan, D. (1996). Contextual analysis of performance impacts of outcome-based incentive compensation. *Academy of Management Journal*, *39*(4), 920-948.

**[13]** Jaramillo, F., Ladik, D. M., Marshall, G. W., & Mulki, J. P. (2007). A meta-analysis of the relationship between sales orientation-customer orientation (SOCO) and salesperson job performance. *Journal of Business & Industrial Marketing*, *22*(5), 302-310.

**[14]** Dursun, T., & Kilic, C. (2011). Exploring occupational and strategic drivers of individual customer orientation. *Journal of Business & Economics Research*, *9*(5), 55.

**[15]** Poujol, J. F., Siadou-martin, B., Vidal, D., & Pellat, G. (2013). The impact of salespeople's relational behaviors and organizational fairness on customer loyalty: An empirical study in B-to-B relationships. *Journal of Retailing and Consumer Services*, *20*(5), 429-438.



***ISSN 2076-9202***

**[16]** Smith, J. G. (2012). An Investigation of Market Orientation's and Selected Personality Traits' Relationship with Dimensions of Customer Orientation in Salespersons. *The Marketing Management Journal*, 22, 97-112.

**[17]** Wang, C., & Zhang, M. (2015). The Impacts of Customer Orientation on Behavioral Intention in C2C e-Commerce Context: The Mediating Role of Customer Value. *Open Cybernetics & Systemics Journal*, *9*, 1025-1032.

**[18]** Wagenheim, M., & Rood, A. S. (2010). The relationship between employee satisfaction with organizational communication and customer orientation. *Managing Leisure*, *15*(1-2), 83-95.

**[19]** Thomas, R. W., Soutar, G. N., & Ryan, M. M. (2001). The selling orientation-customer orientation (SOCO) scale: A proposed short form. *Journal of Personal Selling & Sales Management*, *21*(1), 63-69.

**[20]** Periatt, J. A., LeMay, S. A., & Chakrabarty, S. (2004). The selling orientation–customer orientation (SOCO) scale: Cross-validation of the revised version. *Journal of Personal Selling & Sales Management*, *24*(1), 49-54.

**[21]** Conduit, J., & Mavondo, F. T. (2001). How critical is internal customer orientation to market orientation?. *Journal of Business Research*, *51*(1), 11-24.

**[22]** Wachner, T., Plouffe, C. R., & Grégoire, Y. (2009). SOCO's impact on individual sales performance: The integration of selling skills as a missing link. *Industrial Marketing Management*, *38*(1), 32-44.



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# CRIME BEHAVIOURAL TENDENCY OF SCHOOL-GOING ADOLESCENTS IN IBADAN: HOME BACKGROUND, SELF-REGULATION AND PARENTING PROCESSES AS PREDICTORS

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**Abstract**
The study investigated the crime behavioural tendency of school-going adolescents in Ibadan: home background, self-regulation, parenting processes as predictors. The study adopted a descriptive research design of *ex-post-facto type*. Multistage sampling method was used in selecting 500 participants from 5 local government areas in Ibadan, Oyo State. The variables were measured validated instrument which with reliability co-efficient of 0.81. The data obtained were analyzed using Pearson Product Moment Correlation and multiple regression at 0.05 level of significance. The result showed that there was a significant correlation among home background, self-regulation and parenting processes and crime behavioural tendency of adolescents, self-regulation made the most significant relative contributions followed by parenting processes and home background. Therefore, on the basis of the findings, it is recommended that adolescents and parents should be re-orientated on the need to provide appropriate need and support for the adolescents and that counselling psychologists should intensify their effort to organize conferences on the implications of these factors (such as self-regulation, parenting processes and home background among others) to crime behavioural tendency of adolescents.

***Keywords:*** **Home background, Self-regulation, Parenting processes and Crime behavioural tendency**
***Word Count: 175***

## Introduction

Adolescence marks the transition from childhood into adulthood. This age bracket is retained by the United Nations Children's Fund (UNICEF) (2015) that gave the figure of such population as 1.2 billion and explains that adolescence is an age of opportunity for children, and a pivotal time for the rest of the world to build on their development in the first decade of life, to help them navigate risks and vulnerabilities, and set them on the path to fulfilling their potentials. It is characterized by cognitive,



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psychosocial, and emotional development. As adolescents develop and struggle to establish their own identity, they are sometimes compelled by natural tendency to resist parental authority and test boundaries. This tendency may become routinely severe and expose them to risks of escalating beyond control. This period of adolescence is a time of struggle and turmoil as a result of transition from childhood to adult. At this time, the adolescents are striving for personal identity towards independence from parents, finding friends, making career decision and finding meaning of self. This period of life comes with much concern about school violence, drug abuse, bullying, and other destructive forms of behaviour (Falaye, 2012).

The first substantial reorganization and restructuring of behaviour occurs at a time when adolescent has the intellectual capability to appreciate fully the significant changes occurring during adolescence, adolescent is far more self-conscious about these changes and feels them more acutely. These behaviour changes concerns the fundamental biological, cognitive and social changes characterized with the period, as adolescents develop, puberty sets in which bring with it dramatic changes in physical appearance and alters the adolescents self-conception and relationship with others (Muraina and Muraina, 2015). Undergoing physical changes of puberty may prompt fluctuations in the self-image and a reevaluation of whom adolescent really is (Busari, 2010). Just as the broadening of intellectual capabilities during early adolescence provides new ways of thinking about problems, logical reasoning, hypothetical thinking, values and interpersonal relationships which permits adolescents to think about themselves in new ways and act series of provoking behavioural dispositions. Behaviour problems may refers to delinquent and criminal behaviour among adolescents as they negotiate the transition from childhood to adulthood in an increasingly complex and confusing world. Although the issue of behaviour problems is an age long problem, various anti-social behaviours often associated include vandalism, drug abuse, weapon carrying, alcohol abuse, rape, examination malpractices, school violence, bullying, cultism, truancy, drop-outs, to mention but a few (Adeyemi and Muraina, 2015). There have been a number of attempts at the explanations of the causes, nature and dynamics of deviance behaviour or adolescent crime behavioural tendency.

Crime behavioural tendency of adolescents (CBA) refers to getting involved in acts prohibited by criminal law, such as theft, burglary, violence, vandalism and drug use. Adolescents crime behavioural tendency is characterized by having symptoms such as disregarding societal expectations, laws, violating rights of others (property, sexual, legal, emotional violations), physical aggression, instability in life and showing impulsive behaviour that break criminal laws (Nnachi, 2000). These comprise behaviours that cause immediate injury (physical or otherwise) as well as behaviours that cumulate into negative effects. Example of these risks are self-injury, violence, suicide, sexual risk behaviours, use of alcohol or drugs, fighting, vehicular activities brought about by drinking and so on (Adewuyi and Jimoh, 2017). Similarly, in recent years, a higher proportion of youth have experienced arrest by their early 20's than in the past. Their offences ranges from status offences (such as underage smoking, alcohol drinking) to property crimes and violent crimes (Moffit, 2006). Some of these factors include gender, family values, parental influence, parents' level of education, peer influence, home and self-esteem among others. For the purpose of this paper, home background, self-regulation and parenting processes was considered as predictors of crime behavioural tendency.



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Home background refers to the environment where the individual is born and nurtured by adults who may include his or her parents until the individual is capable of fending for own living (Ogbeba, 2006). In Nigeria, there are two types of homes; polygamous and monogamous homes. A polygamous home is a composition of the family set where one man marries two or more wives at a time (Adeyemi and Muraina, 2015). This type of family has often been conceived to be characterized by unequal treatment of children, jealousy, and unhealthy relationship between siblings and co-wives. In most polygamous homes, many children compete for the limited resources at the disposal of the father who is often the head and breadwinner of the home while the wives remain full house wives (Muraina and Adewuyi, 2017). A monogamous home on the other hand has a man is married to a woman at a time. The monogamous home composition is basically the father, one wife and children. The family members are usually bounded and this gives members the opportunity to have concern for one another and misunderstandings are easily settled.

The home, besides determining the individual's inherited potentials, is a major factor in accelerating or retarding all aspects of human development (Nnachi, 2000; Opara, 2004). The home, being the first institution to which the child is exposed, is automatically the first to teach and train the child. Home environment is the pedestal on which every society is built and it is therefore fundamental to the stability or instability of the society. The world is a reflection of the various and diverse homes (Onete, Eyo and Joshua, 2009). Rodney, Tachia and Rodney (1997) sought to determine the relationship between an adolescent's home environment and his/her involvement in conduct disorder. The results showed that a higher proportion of females than males started physical fights, used weapons to harm, and ran away from home. Proportionately, more males deliberately set fires and destroyed property. Kimani (2010) investigated the causative relationship between family unit structure and juvenile delinquency. The research revealed that there was a strong correlation between murder and a child having come from an intact family.

Similarly, self-regulation is the ability to monitor and control our own behavior, emotions, or thoughts, altering them in accordance with the demands of the situation. It includes the abilities to inhibit first responses, to resist interference from irrelevant stimulation, and to persist on relevant tasks even when we don't enjoy them. Adolescence being a strong period of self-reflection, as adolescents will think about what others think of them, the parents, expectation and question what tomorrow will bring (Lassari, 2015). Therefore, adolescents with lack of self-regulations will engage in more risky and problematic behaviours, such as smoking, drinking, drugs, unprotected sex, and dangerous driving, to name a few. Most times, these adolescents will think a lot about themselves and their looks before entering any type of social realm, and they will spend a lot of time making their outward appearance acceptable to others. These and many more are thoughts pattern of majority of adolescents that posse challenges as the adolescent mind progresses towards growth and adulthood (Farre, 2015).

Kembe (2008) carried out a research on influence of self-regulations on patterns of child mis-behaviour in Makurdi metropolis. Results of the findings show also that behaviour vices such as lateness to school, examination malpractices, and use of drugs, illicit sexual relationship and improper



ISSN 2076-9202

dressing were identified as common patterns of child mis-behaviour among Junior Secondary School Students. Kimani (2010) investigated the causative relationship between self-regulation and juvenile delinquency. The research revealed that there was a strong correlation between the two variables. Also for a single parent family parenthood, there was a strong correlation between street life, sex and defilement offences. Children brought up in a step parent home lacks self-regulation and therefore had a strong inclination towards substance abuse but the correlation was even greater for stealing and refusing school. For children having come from a children's home, they had a strong correlation towards substance abuse and street life but showed a negative strong correlation with refusing school. For children brought up in a grandparent family structure, the correlation was strong for substance abuse and the highest for stealing. Murder was the least committed offence while refusing school and street life were the most dominant.

Parenting processes is the process of promoting and supporting the physical, emotional, social, and intellectual development of a child from infancy to adulthood. Parenting refers to the intricacies of raising a child aside from the biological relationship. The most common caretaker in parenting is the biological parent(s) of the child in question, although others may be an older sibling, a grandparent, a legal guardian, aunt, uncle or other family member, or a family friend. Parenting skills vary, and a parent with good parenting skills may be referred to as a good parent (Jane*,* 2012*).* Parenting process encapsulates the set of attitudes parents transmits to the child to create an emotional climate surrounding parent-child exchanges. Parenting style is different from parenting behaviours, which are characterized by specific actions and socialization goals. The combination of parental warmth and demanding nature is central to conceptualization of parenting style. There are two contemporary approaches to understanding the impact of parenting on children's development: typo-logical and social interaction (Muraina and Muraina, 2015). Typological models focus on overall styles or types of parenting while the social interaction approach stresses the nature of specific exchanges between parent and child.

Some research reports have shown that a large percentage of all CBA come from homes that lacked normal parental love and care. Attention, love and warmth go a long way in assisting the child's emotional development and adjustment (Odebunmi, 2007). Children at adolescence stage require parental love, care, warmth and serious attention to adjust adequately in the environment in which he/she finds him/herself. Parents have major roles to play in the adjustment process of adolescents. The behavioural problems of most deviants are rooted in their homes (Odebunmi, 2007). Adeyemi and Muraina (2015) noted that when the relationship between the parents and the adolescents is warm, it creates a healthy environment for the development of the adolescent. A study by Akpochafo (2004) found that child abuse in the process of parenting can affect the personality of an individual. Akpochafo specifically studied parental perceptions of the dimension of child abuse implication for counselling. The findings of the study shows that the forms of child abuse ranked in order of occurrence are: verbal abuse, street hawking, scavenging, physical abuse like punching and beating; that the frequency of child abuse is more perceived in urban areas than rural areas.

At moment, adolescents all over are faced with a whole lot of challenges ranging from changes in the body forms, striving for personal identity, independence from parents, finding friends, making



ISSN 2076-9202

career decision, gaining acceptance, educational attainment and finding meaning of self. Although, several researchers have been done on adolescents behaviour such as body imaging, peer relationship, school commitment academic performance, career selection, aspiration as well as career choice just to mention a few, all these have not proffer solution to behaviour problems among adolescents. More so, given the importance of this critical time in an adolescents' growth and development, the researcher have thought that it is necessary to investigate, specifically, the crime behavioural tendency of school-going adolescents in Ibadan: home background, self-regulation and parenting processes as predictors.

**Purpose of the Study**

The main purpose of this study is to investigate crime behavioural tendency of school-going adolescents in Ibadan: home background, self-regulation and parenting processes as predictors. Specifically, the study sought to make findings on;

1. The pattern of relationship between home background, self-regulation and parenting processes and crime behavioural tendency of school-going adolescents in Ibadan
2. The joint contribution of independent variables (home background, self-regulation and parenting processes) to the crime behavioural tendency of school-going adolescents in Ibadan
3. The relative contribution of home background, self-regulation and parenting processes to crime behavioural tendency of school-going adolescents in Ibadan

**Research Questions**

Three research questions were raised and answered in this study:

1. What is the pattern of relationship between home background, self-regulation and parenting processes and crime behavioural tendency of school-going adolescents in Ibadan?
2. What is the joint contribution of independent variables (home background, self-regulation and parenting processes) to the crime behavioural tendency of school-going adolescents in Ibadan?
3. What is the relative contribution of home background, self-regulation and parenting processes to crime behavioural tendency of school-going adolescents in Ibadan?

**Methodology**

The research design adopted in this study was a descriptive research design of *ex-post-facto type*. The descriptive design is the systematic empirical enquiry in which the researcher does not manipulate or have direct control of the situation. The population of this study covered all school-going adolescent in Ibadan metropolis**.** For the purpose of this investigation, the researcher employed the multi stage sampling technique, the first stage involved the use of random sampling technique in the selection of five (5) Local Government Areas in Ibadan metropolis, next is the selection of two (2) schools each from the randomly selected LGA, fifty (50) students comprising of both male and female are randomly selected across each schools in the last stage. However, five hundred (500) students were chosen in all the schools selected for the study.

**Crime Behavioural Tendency Scale:** Crime behavioural tendency Scale developed by Knight, Garner, Simpson, Morey, and Flynn, (2006) was adopted by the researcher for data collection on adolescent criminal behaviour tendency. The scale contains 36 items from 6 scales representing Entitlement,



*ISSN 2076-9202*

Justification, Power Orientation, Cold Heartedness, Criminal Rationalization and Personal Irresponsibility. The scale was developed using 5 Likert-type ranging from SD (Strongly Disagree) to SA (Strongly Agree). Originally, the reliability index (co efficient alpha) of the instrument was reported by the authors to be .89 and test-retest reliability (.95). In order to re-affirm the reliability of the instrument, the corrected version of the instrument was administered to twenty adolescents this group was not part of the main study. The reliability of the instrument was .90 alpha using Cronbach alpha technique.

**Home Background Scale:** The scale developed by Ogbeba (2006) was used to assess the home background of the participants. It is a 5 Likert scale with 20 items on the scale. The scale specifically sought to quantify three dimensions of the home (Interpersonal, direction of personal growth and basic structures). The scale has a reliability of 0.85. In order to re-affirm the reliability of the instrument, the corrected version of the instrument was administered to twenty adolescents; this group was not part of the main study. The reliability co-efficient of the instrument on home environment yielded 0.80.

**Parenting Process Scale:** Parenting process scale developed by Akpochafo (2004) was adopted in this study; the scale has construct validity in relation to parenting styles. It is a 10 item scale based on 5 point likert scale which used the responses, strongly agree (SA), agree (A), undecided (U), disagree (D), strongly disagree (SD). The scale showed adequate internal consistency with alpha coefficient of 0.70, and reliability indices of 0.81. In order to re-affirm the reliability of the instrument, the corrected version of the instrument was administered to twenty adolescents; this group was not part of the main study. The reliability co-efficient of the instrument on home environment yielded 0.76.

**Self-Regulation Scale:** Self-regulation scale developed by Lassari (2015) was adopted in this study; the scale has construct validity in relation to self-regulation. It is a 15 item scale based on 5 point likert scale which used the responses, strongly agree (SA), agree (A), undecided (U), disagree (D), strongly disagree (SD). The scale showed adequate internal consistency with alpha coefficient of 0.70, and reliability indices of 0.81. In order to re-affirm the reliability of the instrument, the corrected version of the instrument was administered to twenty adolescents; this group was not part of the main study. The reliability co-efficient of the instrument on home environment yielded 0.81.

The data collected from the study were analyzed using Pearson Product Moment Correlation (PPMC) and multiple regression statistical method.

**Results**

The results are presented below:

**Research Question One**: What is pattern of the relationship between the independent variables (home background, self-regulation and parenting processes) and crime behavioural tendency of school-going adolescents in Ibadan?

**Table 1: Descriptive statistics and Inter-correlations among the variables**

| Variables | N | Mean | SD | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|---|---|
| Crime Behavioural Tendency | 500 | 86.52 | 43.09 | 1.00 | | | |
| Home Background | 500 | 46.34 | 26.16 | .661** | 1.00 | | |
| Self-Regulation | 500 | 33.97 | 21.32 | .702** | .686 | 1.00 | |



ISSN 2076-9202

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Parenting Processes | 500 | 43.48 | 27.10 | .483** | .749 | .488** | 1.00 |

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

Table 1 shows correlation between home background, self-regulation and parenting processes and crime behavioural tendency of adolescents. It was observed that home background (r = .661; p<0.05); self-regulation (r = .702; p<.05) and parenting processes (r = .483; p<.05) had significant relationship with crime behavioural tendency among adolescents.

**Research Question Two:** What is the significant joint contribution of independent variables (home background, self-regulation and parenting processes) to the crime behavioural tendency of school-going adolescents in Ibadan?

**Table 2: Multiple Regression Analysis on crime behavioural tendency**

R =.55
R Square = .46
Adjusted R Square = .41
Standard Error = 12.21

| Model | Sum of Squares | Df | Mean square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 4623.49 | 3 | 1541.17 | | |
| Residual | 32012.37 | 497 | 64.41 | 23.93 | .000 |
| Total | 36635.86 | 500 | | | |

*p, 0.05

It was observed from table 2 that there was a significant combined effect of (home background, self-regulation and parenting processes) to the prediction of crime behavioural tendency among school-going adolescents in Ibadan. The result yielded a coefficient multiple regression R of .55, p<.05. The equation also showed adjusted $R^2$ of .41, suggesting that the independent variables accounted for 41.0% variation in the prediction of adolescents' crime behavioural tendency. It was revealed that the above variances are the explained variances within the scope of this study. This implies that the above independent variables contributed significantly, even though the percentage of contribution is not evenly distributed. The other unexplained factors could be variables that are not within the scope of this study.

**Research Question Three:** What is the relative contribution of home background, self-regulation and parenting processes to crime behavioural tendency of school-going adolescents in Ibadan?

**Table 3: Relative Contribution of Independent Variables to the Prediction**

| Model | Unstandardized coefficients B | Standardized coefficients Standard Error | β | t | p |
|---|---|---|---|---|---|
| Constant | 36.55 | 6.89 | | 4.35 | p<0.05 |
| Self-Regulation | 0.63 | .17 | .30 | 3.32 | p<0.05 |
| Home Background | 1.65 | 1.02 | .11 | 2.12 | p<0.05 |
| Parenting Processes | 4.25 | 2.18 | .17 | 1.21 | p<0.05 |



ISSN 2076-9202

From table 3 it shows that each of the independent variables made a significant contribution to the prediction of crime behavioural tendency among adolescents. In term of magnitude of contribution, self-regulation made the most significant contribution ($\beta$ = .30; t= 3.32; p<0.05). The contribution of other independent variables to was observed in the following order: parenting processes ($\beta$ = .17; t= 1.21; p<0.05); and home background ($\beta$ =.11; t= 2.12; p<0.05).

**Discussion of Findings**

The result of the first research question revealed that, correlations existed between home background, self-regulation, parenting processes and crime behavioural tendency of adolescents. The result demonstrated that factors responsible for crime behavioural tendency among adolescents are residents in the home background, the parents and the adolescents themselves. The home which also constitutes the parents is the first learning environment where adolescents assimilate and inculcates different habits and behaviours which culminate into their personality eventually. This finding is consistent with that of Kimani (2010) who found that that there was a strong correlation between murder and a child having come from an intact family. Similarly, for a single parent family parenthood, there was a strong correlation between street life, sex and defilement offences. Children brought up in a step parent home had a strong inclination towards substance abuse but the correlation was even greater for stealing and refusing school. In the same vein, Kembe (2005) found that behaviour vices such as lateness to school, examination malpractices, and use of drugs, illicit sexual relationship and improper dressing were identified as common patterns of child mis-behaviour among Junior Secondary School Students.

The second research question showed that there was a significant combined effect of (home background, self-regulation and parenting processes) to the prediction of crime behavioural tendency among school-going adolescents in Ibadan. This implies that the above independent variables contributed significantly, even though the percentage of contribution is not evenly distributed. The other unexplained factors could be variables that are not within the scope of this study. The finding corroborates with the work of Kimani (2010) who found a relationship between self-regulation and juvenile delinquency. The research revealed that there was a strong correlation between the two variables. Also for a single parent family parenthood, there was a strong correlation between street life, sex and defilement offences. Children brought up in a step parent home lacks self-regulation and therefore had a strong inclination towards substance abuse but the correlation was even greater for stealing and refusing school.

The last research question showed that each of the independent variables made a significant contribution to the prediction of crime behavioural tendency among adolescents. In term of magnitude of contribution, self-regulation made the most significant contribution followed by parenting processes and home background home background contributed the least. This was supported by previous studies such as Otuadah (2006) who found that when the relationship between the parents and the adolescents is warm, it creates a healthy environment for the development of the adolescent. As a rider to that, a study by Akpochafo (2004) found that child abuse in the process of parenting can affect the personality of an individual. Akpochafo specifically studied parental perceptions of the dimension of child abuse implication for counselling. The findings of the study shows that the forms of child abuse ranked in order of occurrence are: verbal abuse, street hawking, scavenging, physical abuse like punching and beating;



ISSN 2076-9202

that the frequency of child abuse is more perceived in urban areas than rural areas.

**Recommendations**

Based on the findings of this study, the following were recommended;

1. Parents and other educational stakeholders should be re-orientated in addition to relevant authorities and stakeholders in the law enforcement agencies, parents should present themselves when the adolescents are in need of them. It is vital that they should always be there at all times to provide physical, emotional, academic, moral and social support to their adolescents whenever the need be.
2. Concerned stakeholders such as the schools, church, mosque, government and law enforcement agencies should rise to the challenges of crime behavioural tendency among adolescents.
3. Counseling psychologists and educational stakeholders should intensify their effort to organize seminars/conferences on these factors (such as self-regulation, parenting processes and home background among others) as they significantly influence the crime behavioural tendency among adolescents.
4. Governments should assure that their laws apply to all crimes and ensure that African countries are bedeviled by various socio-economic problems such as poverty, AIDS, fuel crisis, political and ethnic instability and other related problems in the society.

**Conclusion**

This research work has been able to establish home background, self-regulation and parenting processes as the predictors of crime behavioural tendency among school-going adolescents in Ibadan. The result showed that self-regulations made the most contribution in terms of magnitude hence the need to always foster adequate self-regulatory skills among these adolescents, parenting processes also matters likewise the home background of the adolescents. As such, the upshot of this study is a challenge to counselling psychologists, parents, and stakeholders in the area of crime control. Intensive efforts must be made in making sure crime behavioural tendency are curbed in the society.

**References**

Adewuyi, H. O. and Jimoh A.M. (2017). Social Networking and Peer Influence as predictors of Sexual Behaviour among school-going adolescents in Osun State. *Ibadan Journal of Educational studies, 14, 60-67.*

Adeyemi, A. O and Muraina, K. O. (2015). Personological Factors and Sexting Behaviour among in-school Adolescents: Implications for Counselling Psychology. *International Journal of Educational Studies, Vol. 12 (3), 15-28*

Akpochafo, J. M. (2004). Curbing Child Abuse in Nigeria through the Promotion and Protection of Children's rights. *Journal of the Nigerian Society for Educational psychologists. 3*(1), 200-209

Busari, A. O. (2010). *Psychology of Adolescent for Colleges and Univesities*. Glory-Land Publishing Company. Mokola, Ibadan.

Falaye, A. O. (2012). Predictive factors influencing the sexual behaviour of some Nigerian adolescents. *IFE Psychologia*, 12(2), 17-26.

Farre, R. S. (2015). *Essentials of Understanding Psychology.* 4th edition. New York: McGraw-Hill Companies, Inc.



***ISSN 2076-9202***

Jane, G.F. (2012). *Delinquency and Youth Crime*. (2nd Ed.). Chicago: Waveland Press.

Kembe, E. M. (2008). Verbal Abuse: Causes and Effects on Adolescent Personality. *The Journal of Family Development, 4, 45-49*

Kimani, A. (2010). *Influence of family structure on juvenile delinquency in Nakuru children's remand home*. Retrived on June 20th, 2016 from http://www.freeonlineresearchpapers.com/family-structure-pdf

Knight, K., Garner, B. R., Simpson, D. D., Morey, J. T & Flynn, P. M. (2006). An Assessment for Criminal Thinking. *Crime and Delinquency*, 52, 159-177.

Lassari, D. (2015). Child Abuse in the Nigerian Home: A Threat to National Development in Nigeria. *Journal of Family Development. 3*(1), 121-128

Moffit, J. (2006). *Youth and crime*: 2nd (Ed.). London: Sage Publication, Inc.

Muraina, K. O and Adewuyi H. O. (2017). Influence of Peer Pressure, Socio-Economic Status and Social Networking on Academic Performance of Students in Oyo State. *Africa Education Evaluation Journal. Vol 1, 1-3*

Muraina, M. B and Muraina, K. O. (2015). Peer Pressure and Parental Socio-Economic Status on Cybercrime Habit among University Undergraduates in Southwestern Nigeria. *International Journal of Technology in Teaching and Learning, 11*(1)*,* 50-59.

Nnachi R. O. (2000). *Achievement, Gender and Self-Concept as Correlates of secondary school students' career preference and attitude in science.* Unpublished Ph.D. Thesis, Ahmadu Bello University, Zaria.

Odebunmi, A. (2007). *Parenting: A Cross – Cultural and Psychological Perspective*. buja: Afabunmi Nigeria Limited.

Ogbeba E. A. (2006). *Influence of Home Environmental Factors on Adjustment Problems of In-school Adolescents in Agatu L.G.A of Benue State.* Unpublished M.Ed Project. University of Nigeria Nsukka

Onete, U. O., Eyo, M. B. & Joshua, A. M. (2009). A Study of the Differential Effects of Family Socio-Economic Status on Mental Health of Adolescents in Calabar Municipality. *The Nigerian Educational Psychologists*. 7, 153-161

Rodney, H. E., Tachia, H. R., & Rodney, L. W. (1997). The Effects of Family and Social Support on Feelings and Past Acts of Violence among African-American College Males. *Journal of American College Health*, 46(3), 103-108

United Nations International Children's Fund, UNICEF. (2015). *Annual Report,* New York: UNICER Division of Communication.



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# PUBLIC TRANSPORTATION PROJECT: ANALYZING THE BUSINESS MODEL OF DELPHI SUBWAY AIRPORT EXPRESS METRO LINE

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Abstract

This paper examines the conditions of developing an additional line to the Delhi subway in order to facilitate the transportation in the city during the Commonwealth Games. The paper is developed through analyzing the business model that delivered the development of the project, and proposes what could have done differently in order to minimize risks. The development of the subject will be carried out through the specific questions and the answers provided by the author.

Keywords: Delphi, transportation, business model, project, development

## 1.1.Introduction

In India, where the project under consideration is going to be developed (the project that was going to be constructed was related with the conduct of the Commonwealth Games and the connection of the new Delhi Railway Station with the Indira Gandhi International (IGI) Airport through a subway system that would facilitate the city's traffic), public-private partnership was the basic model in constructions, meaning the cooperation of the private sector with the public (Abou-bakr, 2013). This model is ideal because of the following reasons (Grimsey, et all, 2005):

1. Easy finding the funds and the support of the public initiatives from private capitals. The model defined the cooperation of at least one public entity with one or more private sector companies, the so called concessionaires.
2. The model involved a contract between two or more parties which limited the risk since it was distributed among a greater number of involved parties. The shared risk was economic, technical and operational while the profits from the project would be shared respectively to the companies involved based on their contribution.
3. It allowed various services and multiple roles to the parties involved.
4. It could achieve effective use of the resources, which was very essential to reduce costs.
5. This model guaranteed safety and sustainable financial base for the companies involved but also



*ISSN 2076-9202*

for the project as a whole.

6. The costs would be distributed in time among the users and not the constructors of the project. Another option based on the model was for the state to bear the costs and finally the group of companies. This project was covered by 33% from the private sector and 67% from public funds.

## 2.0 What business models are considered by Sreedharan and his team at DMRC? Analyze their strengths and weaknesses.

The model that was suggested by E. Sreedharan and his colleagues consists of different phases. Specifically in Phase I the Delhi Metro would include a fair sharing of costs, 40% from the state and 60% from borrowing. Specifically according to the present model the 38.78% would have to come from the state budget, 1.22% would be from the government in relation to the cost of the land and finally the remaining 60% would come from borrowing as mentioned above.

During the first phase, the loan would originate from two sources; the first source was the JBIC, which would give a loan at 1.3% per year, which would be available for a period of 30 years with a moratorium for 10 years. The other source was a domestic loan at 10% per year with a moratorium for 20 years (Anvuur, and Kumaraswamy,2007).

In the end, the proposal that was promoted was to acquire a loan only from JBIC for both the phases I and II of the project. In the course because AEML, would not participate in the second phase, JBIC, gave loan only for the first phase of the project and the remaining costs would be covered by loans from the domestic market. The advantages and disadvantages of the model were as follows (Crowley and Karim, 1995):

**Advantages**:

1. The project would not be covered for at least the first phase of public funds, and this wouldn't burden the state, which would have the discretion to invest the money in other actions.
2. The project would evolve much faster which was necessary given the conditions and the undertaking of the Games that the city had to organize.
3. The cost of the project would be covered over time, which was easier for the state and its citizens in relation to its repayment.

**Disadvantages**:

1. The project would be covered by a loan so the state should yield profits from the Games in order to meet its obligations and avoid conveying the burden to the citizens.
2. The non-participation of AEML in the second phase was a disadvantage regarding the borrowing and at a level of homogeneity of the project during the second phase where another company would get involved.
3. Borrowing from the domestic market was unprofitable in terms of interest and repayment period so that phase II would have increased costs for the citizens.



*ISSN 2076-9202*

### 3. How does the outlook of a private partner change when construction risk is shouldered by the public sector partner?

Based on the model which was described in the previous question, the cost for the construction of the project including land, construction of stations and their benefits would be covered by the government and the construction companies of the airport.

The Operating and maintenance costs of the project would be covered by private companies and in this sense the construction of the project would be 70%, 30%.

According to Burnett (2007) in projects of public interest where the state has the largest participation, the project becomes more alluring to prospective investors since they have more profit potential and development and have limited risk than other projects where the risk is shared (Burnett, 2007).

At the same time these perspectives would be even more focused, in the event that the state gives further incentives to private companies supporting the work with percentages in profits, or integrating tax benefits.

Private companies have a unique opportunity based on the selected model to work with the government and proceed with the construction of a project enhancing their brand-name, without investing too much capital and having the ability to utilize it to their favor after the completion of the project.

### 4. Is there any other model that DMRC should have used?

DMRC could use as an alternative model the public value model. Based on this the citizens are able to participate in the decision making process (Teicher, et all, 2006). According to this model, the government would win the trust of citizens and improve its transaction with them.

This procedure would make the citizens co-participants in the decision-making process, reduce responsibilities, reduce complaints while and at the same time it would also reduce the pressure on the budget of the country, where the citizens wouldn't let it be affected thus managing to reduce costs and achieve better value for money, and also less risk since it would be shared with the companies (Teicher, et all 2006)

Along with this model the needs of the citizens would have been considered and perceived regarding the structure that the project should have, and this would make the project be constructed according to the citizens' own expectations, leading them to accept in the future without objection to pay higher taxes, which would easily reduce future public debt.

Potential reactions from the part of the citizens and future customers would assist the State to investigate more the elements that would characterize the project and improve its structure and



ISSN 2076-9202

functionality.

This model compared to the selected one, reduces the risks for the state and transforms citizens into involved stakeholders, which is not the case now, while it would force them based on their decisions to support the project more through the payment of higher taxes.

**5. Is giving "property development rights" a good viability gap funding instrument?**

Property development rights in specific locations point alongside the subway line and where the stations would be positioned should be combined with the city's transportation system and in due time making the project more viable and efficient.

Nevertheless, the above suggestion depends on the availability of state land properties alongside the subway's line. Additionally, such a prospective also relies on the public demand for commercial real estate development in the different city areas which is often considered as an ability to finance the expenditure of capital.

In view of the fact that in order to proceed with project development the covering of the capital expenditure is regarded as one of the most important and direct requirements, the real estate development could accept a disproportionate weight age. However, the transportation project of the city is important not to become highly dependent on the development of property since this perspective could dissociate the centre of attention from the central part of the project. For this purpose the project should have the appropriate safeguards that would guarantee and protect the primary goal of the whole project which is the urban transportation.

Furthermore, if the project ends up in strong dependence with property development, this entails an additional risk for the government since they would more likely fail to address properly the subject of the public transportation holistically since it will not take into consideration the potentials that could arise from several other specific implementations.

Nevertheless, the economic activity is bound to be increased alongside the subway line which is considered as a significant advantage of the project and of course this will also raise the land value of the properties that are located near the stations that would be built. A proportion of this value could be captured in many ways in order to finance the project (Hodge, and Greve, 2007).

## References

1. Abou-bakr, A (2013), *Managing Disasters Through Public-Private Partnerships,* Georgetown University Press.
2. Anvuur, AM and Kumaraswamy, MM (2007) Conceptual model of partnering and alliancing. *Journal of Construction Engineering and Management* , Vol.133, No.3 pp. 225-234
3. Burnett, M.(2007) "PPP – A decision maker's guide", European Institute of Public Administration
4. Grimsey, D., and Mervyn, K. L.(2005) *The Economics of Public Private Partnerships*, Edward Elgar Publishing, Cheltenham, U.K., 2005, p. xv.



*ISSN 2076-9202*

5. Hodge, G. and Greve, C. (2007) Public-private partnerships: An international performance review. *Public Administration Review*, Vol.67, No.3, pp 545–58.
6. Larry G. Crowley and Karim, Md. A.(1995) "Conceptual Model of Partnering," Journal of Management and Engineering, Vol.11, No.5, pp. 33-39
7. Teicher, J., Alam, Q., A. an d Van Gramberg, B. (2006) Managing trust and relationships in PPPs: Some Australian experiences. International Review of Administrative Science,Vol.72, No.1, pp 85–100



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