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Leveraging Social Inclusion Through the Impact of Customer Services Quality on Organizational Performance at a Selected Commercial Bank in Namibia*

Simeon Panduleni Uahengo¹, Sadrag Panduleni Shihomeka²

¹ Sales Manager: MMI Holding and Regent Business School MBA Graduate

² Department of Lifelong Learning and Community Education, University of Namibia, P.O Bok 24531, Windhoek, Namibia, E-mail: sshihomeka@yahoo.com

Abstract

This paper investigated the impact of customer services quality on the organizational performance at a selected commercial Bank in Namibia as a social inclusion driver for economic growth within the banking sector. The objectives for the study were: to establish the relationship between quality customer service and organizational performance; to establish the impact of quality customer service on the overall organizational performance and to offer recommendations to the management and relevant stakeholders. A quantitative research approach was used with a simple random probability sampling. A closed-ended questionnaire was used to collect data to leverage social inclusion through the impact of customer services quality on the overall organizational performance. 57 Closed ended-questionnaires were used to collect the data. By using descriptive statistics, data were recorded on excel spreadsheets. The results of the study were presented by using graphs and converting the data into percentage, mean values and percentages. The finding reveals that quality customer service contributes mostly towards an improved organisational performance. The results further established that majority of the clients including the customer service consultants' staff strongly agreed that, quality customer service contributes to the sustainable organizational performance. The study recommends to the top management of a selected commercial bank to keep on investing in the customer service quality by increasing the numbers of ATMs at every business centre in the area as it provides convenient alternatives to the customers. Furthermore, investments in technological innovations and customer service help commercial banks to sustainably retain and attract more customers yielding much-needed profitability for the bank. The study recommends that future researchers should investigate the inclusive sustainability of customer services quality and how they affect the overall organizational performance at different commercial banks.

Key Words: *commercial bank, Namibia, organisational, performance, Sustainable quality service,*

1. Introduction

1.1 Introduction to the Problem

Namibia like many other countries in Southern Africa is working toward gaining a good reputation in the world with regard to its governance. However its governance machinery still needs to be lubricated further to enhance

* Part of this paper was presented at the Sustainable Economic Growth and Social Development Conference, 16-18 October 2017, Safari Hotel and Conference Centre, Windhoek Namibia

service delivery for the betterment of Namibian people. The Government has adopted a national development plan⁵ that aimed at strengthening institutions for effective service delivery to people in line with sustainable social inclusion (NDP5 report, 2017).

Annual customer satisfaction survey by the business community is recognized that service delivery is not only a challenge in the public sector. It was therefore agreed that in the true Harambee spirit, the Namibia Chamber of Commerce and Industry (NCCI) would on an annual basis measure customer satisfaction in the business sector. During the Harambee Prosperity Plan consultations, the NCCI undertook to develop sector-based targets on turnaround time in the private sector. Effective governance is not only essential but is a pre-condition for the government to facilitate sustainable development. Without effective governance, there can be no sustained economic development, job creation, and poverty reduction. While we have strong governance architecture, it is noted that more should be done to strengthen governance and improve on service delivery through the national objective project of The HARAMBEE PLAN FOR PROSPERITY [HPP] which has been developed to complement the National Development Plans and Vision 2030. The HPP is a focused and targeted approach to achieve high impact in defined priority areas. One of the agreed upon features of planning is that it must be flexible (Harambee Plan for Prosperity 2016/2017&2019/20).

Like many other private institutions, commercial banks in Namibia and the world at large, the Selected Bank in this study has invested much in improving customer service as a key strategy in achieving its mission of creating a better world for all in Namibia and more particularly to compliment the Governments' Harambee Prosperity Plan and respond to the prevailing market demand by identifying the impact of quality customer service and the return that justify investments in customer service. In that connection, the selected bank has come up with what is called 4s strategies focusing on the followings: People, Planet, Partnership and Profit as a vehicle to take the bank to the expected quality customer service standard that subsequently leads to profit growth. These key strategies suggest that, when you have right people at the right positions, that understand the environment where they operate from and the importance of keeping our planet safe, the bank will be able to attract good partnership that will help grow the business to make profit and that will be driven by the people strategy to provide quality customer service (the selected Bank Business Plan 2014/2016).

1.2 Explore Importance of the Problem

Wilson, Zeithamal, Bitner & Gremler (2012:5) stated that all economic activities whose output is not a physical product or construction, is generally consumed at the time it is produced, and provides added value in forms such as convenience, amusement, timeliness, comfort or health that are essentially intangible concerns of its first purchaser.

Despite the government s' Harambee Plan for Prosperity call to all private and public institutions to support the national development goals by investing in customer service quality, the selected bank has recorded 267 complaints about the quality of customer service between the year 2013 to 2016 and this information is recorded in the customer comment book which is the source of this information. In addition there has been an outcry from the general public about the quality of customer service at the selected bank Branches and this information came through different channel of media such as The Namibian Newspapers SMS page, Social media, Customer comment Book, National and Indigenous language Radio Station between the months of April 2013 to April 2016, more complaints have been aired. During the year 2014, feedback forms were implemented by the bank to assist customers by giving them a platform to rate the services of the bank. Most issues raised by the customers include long queues, long waiting time, rude personnel and lack of queue management. And what did the bank do so far to address these issues? The bank has created online link known as Customer Service First where all comments and complaints can be lodged on for future reference, in addition, the introduction of e-educators in the branch to teach incoming customer on the use of electronic banking facilities that supposed to reduce the preserved service failures of long queues which brought customer complaints, however, there is not much difference and no change in the customer complaints. Other clients recommended the bank to work on their customer service as the way forward to retain existing clients. Based on the number of complaints the management has decided to find out what has really caused the complaints since they tried to improve by introducing e-educators, that is supposed to direct the customer queue and teach them how to use electronic

banking and there seems to be no change in customer's complains, hence this investigation is necessary to reveal the real problem.

1.3 Describe Relevant Quality Service Issues

Cook (2011:18) stated that, as the power of the customer increases, consumers are becoming more vocal in expressing their dissatisfaction. As the vast majority of customers still do complain, they give the company both valuable insights and the opportunity to improve the quality of customer service. Yet many organizations still do not actively encourage complaints. In the United Kingdom, the regulatory body for the financial services industry, the Financial Services Authority, is trying to buck this trend by spearheading an initiative called Treating Customers Fairly; which sets out guidelines for dealing with complaints. This provides a definition of a complaint as an expression of dissatisfaction. It promotes the benefits of effective complaint handling which include improved customer retention and avoidance of unfavourable publicity.

On the other hand, Wilson, et al. (2012:79) suggested that customers do not perceive quality in a one-dimensional way but rather judge quality based on multiple factors relevant to the context. The dimensions of service quality have been identified through the pioneering research of Parasuraman, Zenithal, and Berry (2012). Their research identified five specific dimensions of service quality that apply across a variety of service context. These dimensions represent how customers organize information about service quality in their minds that have also triggered by fast movement of global information. The customer gets comparable information from a different source of information as the researchers have indicated in the introduction, fast-moving information has a potential to increase the customer complaints.

The perception that banking services are generally characterized by poor customer service is attributed to the lack of customer understanding of the dynamics that made up the banking operations, the regulations governing the banking services, while on the other hand, banks are not taking the challenges of customer education more seriously to make them (customers) understand the use of technology and management planning, ineffective use of electronic banking facilities, sufficient customer area to accommodate the overwhelming demand of services. On the other hand, customer compares services in different areas with that one in the cities. Researchers observed that, since 2015, there has been a long queue of customers waiting for either cash withdrawal or cash deposits and other similar banking needs at the selected Bank something that could be avoided by using electronic banking facilities. There has been management replacement that was done to bring in new people with new ideas for formulating and drive the service strategies. And high staff turnover at a selected bank is caused by relocation, some employees move to other towns such as Ongwediva while some staff has gone to work for Government. It seems nothing has changed in terms of customer service delivery. According to the Customer Service First website, the customer comment book and Oshiwambo Radio Station between 2013 to 2016 there has been more than 267 complaints registered with the branch concerning the quality of customer services and that warrants any investigation.

A persistent customer complaint is a new phenomenon that requires a responsive approach to address the impact of quality customer service management that is aimed at improving the overall organisational performance. In this study, the researchers have elaborated on the notion of how the quality of customer services is vital to improving the overall organizational performance. This will influence customer perception in trusting the branch service delivery and thus will lead to the total growth of the branch assets and liabilities in relation to sales growth and marketing services for the selected bank in particular. To increase the investment in quality customer service provision, the selected bank top management requires a detailed research that provides in details as to the benefits of quality customer service and the impact it has to the institution and the various stakeholders including the Government.

1.4. Hypotheses and Their Correspondence to Research Design

There have been many customer complaints coming through different media, such as the local indigenous language Radio and Customer Comment Book during the period 2013 to 2016, most of them cited poor customer service as one of the issues that need to be improved. Subsequently, there has been a Management

replacement aimed at improving the situation and many frontline staff were sent to customer service workshops and training however too many customer complaints still do persist. It was not known what really constituted quality customer services and what impact it has on the overall organizational performance. An investigation of the structures in place by the Commercial Bank appears to suggest a system of effective's service delivery and this warrants an investigation that was carried out to fully extract the impact and benefits of quality customer service to the institution and their stakeholders.

The purpose of this study was, therefore to investigate the impact of customer services quality on organizational performance within the scope of social inclusivity. The study aimed at investigating the impact of customer services quality on organizational performance at a selected commercial Bank in Namibia as a social inclusion driver for economic growth within the banking sector. The objectives of the study were:

- To establish the relationship between quality customer service and organisational performance;
- To establish the impact of customer service on organisational performance and
- To offer recommendations to the management and relevant stakeholders

2. Methods

2.1 Identify Subsections

A quantitative research approach was used with a simple random probability sampling. A closed-ended questionnaire was used to collect data to leverage social inclusion through the impact of customer services quality on organizational performance. Fifty-Seven (57) Closed ended-questionnaires were used to collect the data. By using descriptive statistics, data were recorded on excel spreadsheets.

2.2. Participant (Subject) Characteristics

A selected Bank Branch currently has about 20,000 clients registered under the branch categorized as follows as per their income category such as individual queue account holder, saving account holder, Business Cheque account holder. The target population is made up of all the selected commercial Bank clients residing in the Ohangwena Region as defined by the regional boundaries of Namibia. The bank serves clients within the region from smaller towns such as Eenhana, Ondobe, Omafo, Oshikango, Ohangwena, and Engela. Researchers distributed questionnaires to the front liner officials within Oshikango Branch and randomly hand out to individual customers as they enter the branch.

2.3. Sampling Procedure

The sample size process for the questionnaire was 57 participants that were selected using sampling probability simple random sampling techniques who presented themselves at the bank during the period of the survey.

2.4. Sampling Size

A cluster sampling of Fifty Seven 57 participants was simple randomly selected from different account holder categories of clients according to selected commercial bank's classification of clients as well as staff members from the selected commercial Bank branch to enable to make a valued conclusion. A larger sample gave more reliable results, but the response was not 100% of the entire targeted population. Researchers received 70% response from respondents.

2.4.1. Measures and Covariates

A close-ended questionnaire was used to collect data and translated the questions in case of the respondents cannot speak English. A research instrument is a measurement device used by researchers to collect data, of which a 5 Point Likert Scale questionnaire was used for this particular research. The questionnaire was used by the researcher with the closed-ended type of questions.

The questionnaire is a technique whereby all participants are required to respond to a set of similar pre-arranged questions in a set order. Because of its flexibility, a questionnaire is by far the most common instrument used to

collect primary data. The form, wording, and sequence of the questions can influence the responses. Closed-ended questions specify all the possible answers and provide answers that are easier to interpret and tabulate.

The researcher, in this case, used questionnaires because of its flexibility. The researcher administered the questionnaire by the systematic sampling method participants from the selected commercial Bank's clients to the personnel who work directly with customers. The questionnaires with closed-ended questions, which was self-administered in order to ensure a high response rate and allow room for explanations. The primary research instruments of data collection were semi-structured questionnaires used for data collections. Closed-ended questions were the most frequently used in this case study as they allowed respondents to be confined within a certain range of answers by choosing from one or more options.

2.4.2 Research Design

The research method for this research focused only on the collection of textual or visual data. It is generally accepted that it is essential to ensure a tight fit between the purpose or research question and the method. The researcher collected numerical information that is quantifiable and the five intervals were used to collect data as a customer walked into the branch and they provided the researcher with accurate and un-bias information during the data collection. The researchers stand in front of the branch door every morning when it was opening time to hand over questionnaires to five customers on the sequence of five intervals as they walk in the branch.

2.4.3 Experimental

Citing Saunders et al. in his proposal, Changea (2011), states that there is a need to pilot a questionnaire in order to test its validity and effectiveness in bringing about the required result. He continued further by stating that the pilot study also helped to put at ease and prepare participants for the final data collection process.

Pilot studies play an important role in identifying logistical problems which might occur using proposed methods, estimating variability in outcomes to help to determine sample size and collecting preliminary data as well as determining what resources (finance, staff) are needed for a planned study. Researchers carried out a pilot study by distributing 4 questionnaires to the clients (at Eenhana branch and the staff prior to the actual research as this has given him the idea if the questionnaires are properly done. The findings helped the researchers to determine if the questionnaires were extracted the much-needed information from which conclusions can be made, or if the questionnaires require adjustment to cover all the objectives of the study.

3. Results

3.1 Recruitment

The questionnaires were administered at the beginning of December 2016 to first customers who presented themselves in the banking hall during the period of the survey at the selected commercial bank in Namibia. Permission and covering letters explaining what the research was all about to participants were also attached to the questionnaires. Questionnaires were delivered and collected during the period of five days. The personal delivering of questionnaires ensured researcher control by enhancing the collection of the questionnaires. The adoption of personal delivering of questionnaires method increased the overall rate.

3.2 Statistics and Data Analysis

The purpose of data analysis is to build up an empirical model where relationships are carefully brought out so that some meaningful conclusion can be drawn (Shajahan, 2010). For this quantitative study, the researcher followed quantitative analysis in a sequenced account of an experience that is significant to the narrator, indicating a flow of events taken together to convey meaning to the researcher (Saunders et al, 2012).

Collected data were recorded on excel spreadsheets then transferred to SPSS software. The results of the study were presented by using graphs and converting the data into percentage, mean values and percentages.

3.3 Ancillary Analysis

The research instrument used in this research was piloted and through the pilot study, the results convinced

of the reliability of the research instruments. The questionnaire was pre-tested for clarity, completeness, relevance, and shortcomings in a pilot study. Throughout the study, careful considerations were made to ensure the generalizability of findings in terms of the design, measurement and the participants.

One of the strong points of the research instrument developed in this research was the level of consistency it showed regarding items studied during the literature study (Maree, 2016). The statements in the research instruments indicated that the items were discussed in the literature studies that were followed consistently throughout the research instrument to avoid haphazard questioning.

3.4 *Participant Flow*

The researcher conducted the study for five consecutive days and customers that had challenges in writing or speaking English, the researcher himself translated and filled in the questionnaire to ensure correctness of the data collected.

A cluster sampling of 57 participants was purposefully selected from different account holder categories of clients according to selected commercial Bank's classification of clients as well as staff members from the selected commercial Bank Branch to enable a well-informed conclusion. A larger sample gave more reliable results, but the response was not 100% of the entire targeted population. The researcher received 70% response from respondents.

3.5 *Intervention or Manipulation Fidelity*

The researcher was available to the research participants in the study at all stages of the research process and answered all questions or concerns. The researcher also made sure not to divulge personal or specific information regarding experiences which might implicate or cause discrimination against anyone for assisting in the research. The researcher at all times reported findings in a complete and honest fashion without misrepresenting. The researcher did not intentionally mislead research participants as to the nature of research findings. Under no circumstances did the researcher fabricated data to support a particular conclusion. The information research participants provided was not made available to anyone who was not directly involved in the study and cannot be traced or identified to the research participants. Observation involves watching what people do, recording, describing, analysing and interpreting the behaviour of the individual or group in order to get a meaningful understanding of the occurrence.

3.6 *Baseline Data*

The Likert scale was a convenient instrument when the researcher wants to measure a construct. This is accomplished by asking a series of Likert scale questions and then calculating a total score for each respondent, which is assigning the values 1 to 5 depending on how many categories are used.

3.6.1 *Statistics and Data Analysis*

Maree (2016) states that "quantitative research is a process that systematic and objective in its ways of using numerical data from only a selected subgroup of a universe (or population) to generalize the findings to the universe that is being studied.

While on the other hand, Creswell (2014) argued that quantitative method involve the process of collecting, analysing, interpreting, and writing the results of a study. Specific methods exist in both survey and experimental research that relate to identifying a sample and population, specifying the type of design, collecting and analysing data presenting the results, making an interpretation, and writing the research in a manner consistent with a survey or experimental study. During the late 19th and through the 20th century, strategies of inquiry associated with quantitative research were those that invoked the postpositivist worldview and that originated mainly in psychology. These include true experiments and the less rigorous experiments called quasi-experiments. One type of no experimental quantitative research is casual-comparative research in which the investigator compares two or more groups in terms of a cause (or independent variable) that has already happened. Another no experimental form of research is the correlation design in which investigators use the correlation statistics to describe and measure the degree of association(or relationship)between two or more variables or set of scores (Creswell, 2012).

Moreover, qualitative research takes a particular approach towards the research process, the setting of research questions, the development and use of theory, the choice of research strategy, the way that findings are presented and discussed, and so forth. Overall, qualitative dissertations will be very different

in approach, depending on the particular route that you adopt (e.g., case study research compared to ethnographies). Classic routes that you can follow include auto ethnographies, case study research, ethnographies, grounded theory, narrative research and phenomenological research.

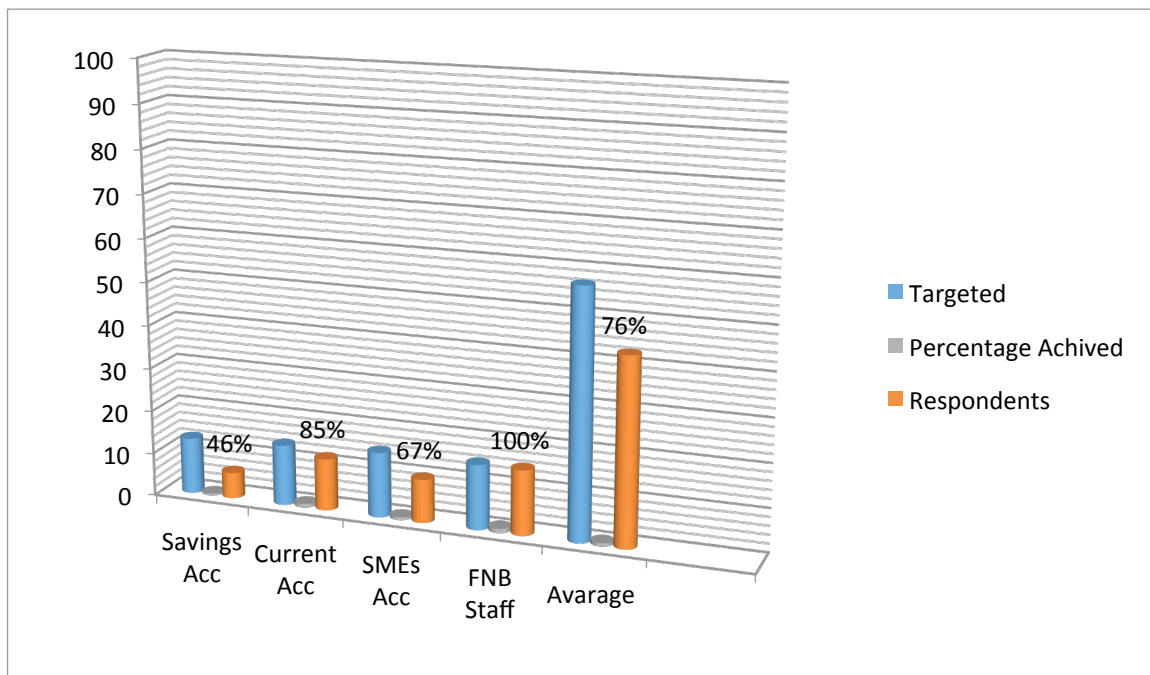
3.6.2 Adverse Events

The Selected Commercial Bank customer service management has been revised every financial year and literature on the quality of customer service and its impact on the overall organisational performance strategies was a major challenge due to the inadequacy of the current similar research done in relation to the topic under study in the bank. Another limitation of this study was the pace of response from the respondents, some wanted to take the questionnaires home and bring it whenever they feel like. The time was too short for a fully employed research who frequently travels all over the country on official engagements to conduct an in-depth study. Participants were ensured by the researchers that, data collected were to be kept confidentially and only used for study purposes. All participants agreed to this research.

4. Discussions

This chapter presents the findings of the research conducted which consist of three subsections; firstly, descriptive results of the research participants' demographic profile are presented. This is followed by the second subsection of the presentation of results of analysed the impact of quality customer service delivery at the selected commercial Bank to the overall organisational performance within the scope of social inclusivity. The third section is the recommendations to management and relevant stakeholders.

Figure 4.1.1 Presentations

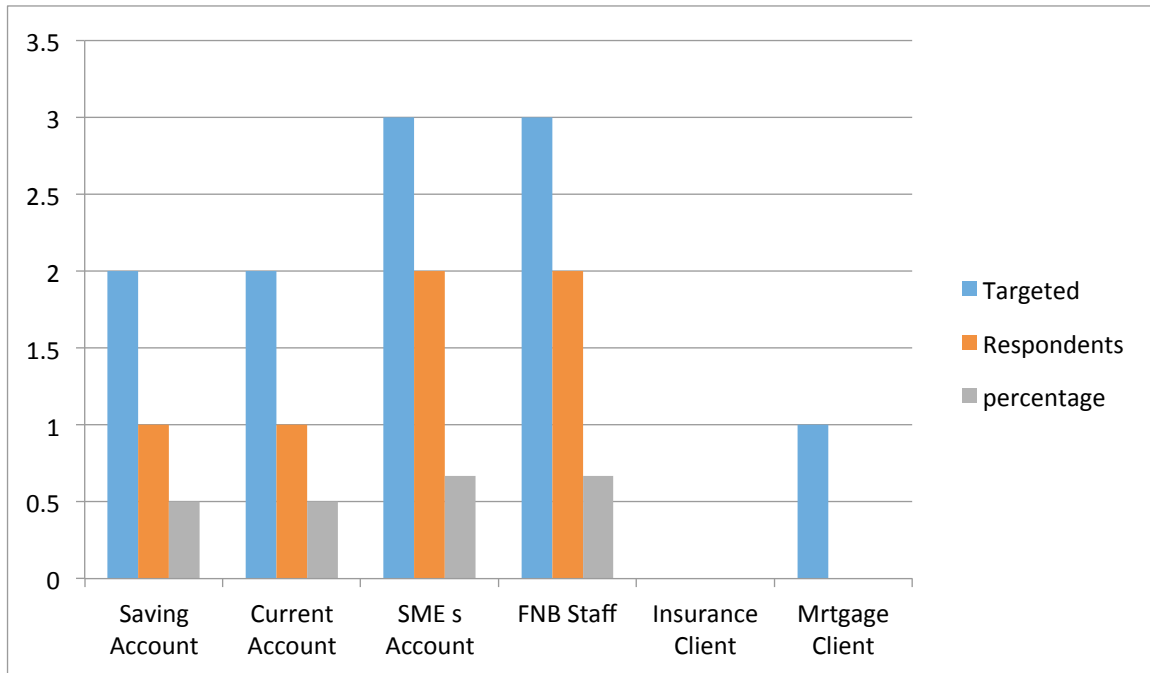


It should be noted that not all questions received 100% through 70% of the questionnaires distributed were received. The average of 75% was accepted as a reasonable response that justifies the use of research findings as a basis for making recommendations in this research and this can be supported by Leedy & Ormrod (2017) who defined validity as the extent to which the research findings can be used beyond the study itself. The results of the selected commercial bank Customer profile of research participants included saving account holder, 13 participants were targeted and 6 respondents were obtained representing 46%, current account holder, 14 were targeted and 12 responded were successful representing 85% SME account holder, 15 were targeted and 10 respondents were successful representing 67%, bank Staff of 15 were targeted and all 15 respondent 100% about their experience with selected commercial Bank in Namibia.

4.1.2 Questionnaires Response Analysis

The summary of the questionnaires that were conducted and the response rate are shown below:

Figure 4.1.3 Questionnaire response analyses

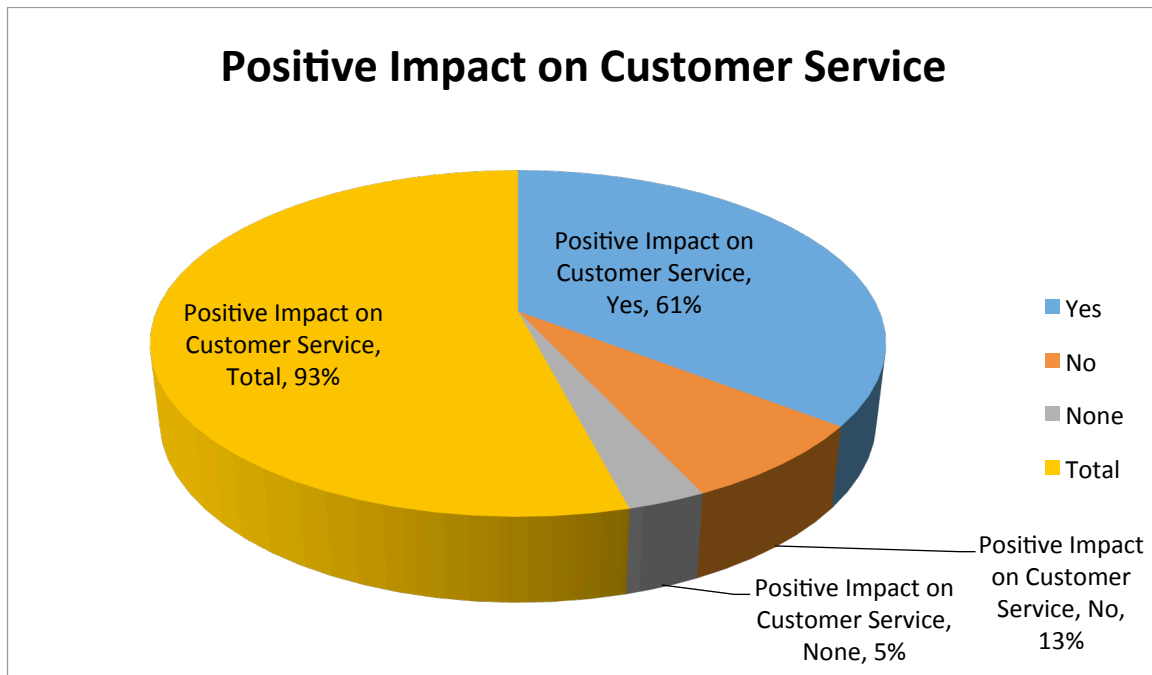


The response rate of 67% helps the researchers to do the analysis, conclusions, and recommendations because it timely represents the targeted respondents and thus makes the obtained information very useful in the study. In this section 57 selected commercial bank clients were targeted and 67% of the clients completed a questionnaire, and 2 current account customer was targeted and 1 questionnaire was successful representing 50%, money market account 2 was were targeted and 1 questionnaire was done presenting 50%. Three bank staff were targeted and 2 were successful representing 67% and the total average is 67% response. Also, the results will be enough to make conclusions for the whole group of respondents.

4.2 Findings

When asked whether the customer service impact/contribute to organisational performance there had been a mixed response. Other subjects agree that customer service contribute positively to organisational performance and others did not agree. The frequencies tabulated as follows:

Figure 4.3: Positive impact of the quality of customer service to the organisational performance.



As shown in Figure 4.3 the above (61%) Thirty Four (34) respondents acknowledge that quality customer service contributes mostly towards organisational performance, (6 of the respondents representing 13%) did not acknowledge the importance of customer service to organisational performance, while 3 respondents representing 5% do not know or decline to respond. This means that customer service really contributes positively towards the overall organisational objectives.

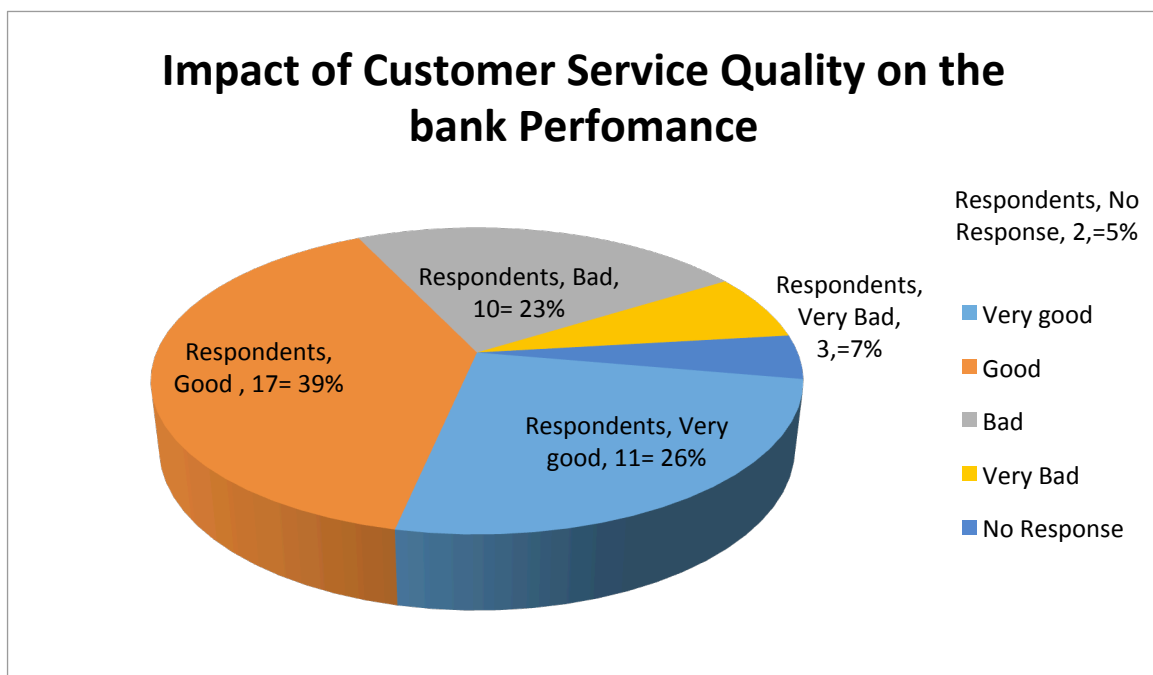


Figure 4.4 what was the impact of customer services quality on Commercial Bank’s overall performance?

The Figure 4.4 shows the number of respondents that responded on the impact of service quality on the Commercial Bank operations and they have responded as follows: Seventeen (17) of them representing 39% say the quality of service and its impact on Bank operation is good and 10 respondent representing 23% said the

impact of customer service is bad while on the other hand 11 respondents representing 26% thinks the impact of service quality is very good. Another respondent in a marginal number of 2 = 5% did not respond and other 3 = 7% said the impact of service quality is very bad.

This means a total number of 65% of respondents full agree that, the impact of customer service quality on selected commercial Bank 's overall performance is good; while the average of 30% of the respondents disagree with the notion that, quality customer service does not have an impact on the organisational performance and only 5% abstain to comment.

However, it is important to note that, the general feeling of the respondents has answered the questionnaires judging from the current moment service experience but not necessarily based on the big picture of the quality service impact else were. The findings show a large number of respondents are in agreement with the fact that, the current customer service quality at the selected commercial Bank Oshikango Branch, in particular, has a huge impact on the overall organisational performance. On the other hand, some respondents feel the current service offering reflect a bad customer service quality that has a negative impact on the overall organisational performance.

Figure 4.5.The relationship between customer service quality and how it contributes to organisational performance.

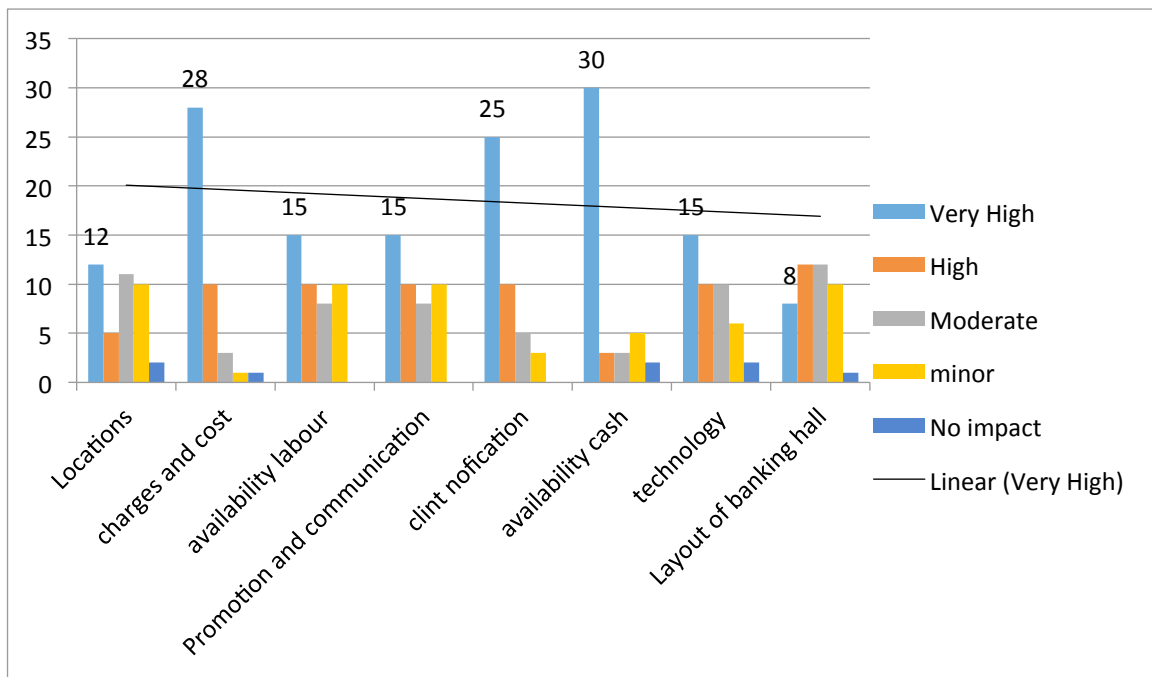


Figure 4.5. depict various service issues and its correlations into Selected Commercial Bank performance and the respondents answered to a greater extent, Less extend, in effect and I do not know. Some of these issues are a customer waiting time which is the highest and customer feel the current turnaround time is unacceptable. Thirty-one (31) respondents =72% feel the more time customer spend in the bank waiting for service has a greater effect on the bank performance. 12 respondents = 28% feel customer bank response after ours has a greater extent while on the other hand, the current bank account notification has 28 respondents = 65% at greater extent and location of the bank has 15 respondents = 34% that feel the location is not that important. Technology has 30 respondents = 70% that says technology affect the bank performance to a greater extent. While layout has 15 respondents =35% and availability of labor has 8 respondents =19% and cash to withdraw has 6 respondents =13% that not really have a big effect on the bank performance.

4.6. Interpretation and Discussion

The previous section presented research results according to research participants' number of customer's profile and research objectives. This section is interpreting and discussing research results according to research objectives.

4.6.1 Research objective 1

This sub-section is interpreting and discussing research results of investigating the quality of customer services at the selected bank. The study revealed that the Bank has difficulties with effective queue management. The researcher is of the view that, the Bank has effective electronic banking services however customer education is needed. The study identified that many customer complaints come as a result of customer understanding and so education is needed to ensure our electronic banking services become fully effective.

The study revealed that majority of customers are happy with the electronic banking services Bank is offering and a minimal number of customers are not happy. The researchers are in agreement that Bank quality customer services have a potential to satisfy the customer demand, however, improvement is required in areas such as queue management, responsiveness, and location of the bank to realise a 100 quality customer services.

The average of 75% was accepted as a reasonable response that justifies the use of research findings as a basis for making recommendations in this research and this can be supported by Leedy & Orman, (2017) defined validity as the extent to which the research findings apply to a situation beyond the study itself. The results of Bank Customer profile of research participants included saving account holder, 13 participants were targeted and 6 respondents were obtained representing 46%, current account holder, 14 were targeted and 12 responded were successful representing 85% SME account holder, 15 were targeted and 10 respondents were successful representing 67%, Bank Staff of 15 were targeted and all 15 respondent 100% about their experience with the selected Bank. Cook (2011: 17) explained that most people define service Excellency based on personal experience. The garage which unexpectedly provides complimentary umbrellas to its customers when they come to collect their cars and it's raining, the newsagent who gives the customer a free sweet when they come to pay their newspaper bill –these would be seen by many as good service.

Mohanty & Lakhe (2011: 49) narrated that most service quality definitions are customer led and have an external focus. Quality is defined as consistently meeting or exceeding customer expectations. This approach relies on the ability of the organization to determine customer requirements and then meet these requirements. A customer led definition implicitly encompasses the supply-led approach. This is because the customer's requirements are built into the service at the design stage, but it is at the transformation stage that the degree of conformance is determined. This approach, therefore, is suitable for organizations offering high contract skill and knowledge-based or labour-intensive services such as healthcare, law, education, and leisure and hotel ring.

It is also safe to contrast this theory in relation to service excellence that is associated with the quality service. He further stressed that, in all industries, some organization is more profitable than others irrespective of the industry's average profitability.

4.6.2 Research Objective 2

This sub-section is interpreting and discussing research results as to establish the impact of customer services on organisational performance. When asked whether the customer service impact/contribute to organisational performance there had been a mixed response. Other subjects agree that customer service contribute positively to organisational performance and others did not agree.

A large number of 20 respondents representing 46% are banking with Bank because of the electronic banking facilities that include, cell phone banking, the point of sale and both business and personal online banking. Another group of respondents of 8 representing 19% is banking with the selected commercial bank for easy access to ATMs and more branches across every town in the country. While on the other hand, 7 respondents representing 16% remain with Bank for Innovation offering the selected commercial Bank have in place and the

5 equal to 11% of the respondents like Bank brand, while only 3 respondents = 16% do not know why they are banking with Bank.

4.6.3 Research Objective 3

To offer recommendations to the management of the organization and relevant stakeholders.

The researchers recommend to the top management of selected commercial Bank to keep on investing in the customer service as it contributes to overall organizational performance. Investment in customer service will help Selected Commercial Bank branch retain and attract more customers yielding much-needed profitability for the financial institution.

The researchers recommend that selected commercial Bank to introduce more ATMs across the Business Centers of Oshikango to provide more banking services alternatives to Customers that will lead to the reduction of long queues in the branch and so enhance the customer service quality. Part of the quality customer service delivery efforts and transparency the bank should provide notifications to all bank charges as more customer visit the bank for bank charges inquiries that lead to long queues and that can be reduced by introducing the cell phone notifications like other big transactions. E-wallet to be more flexible to be accessible to other banks, Mobile ATM should be made available at newly proclaimed Settlements, dedicated Home loan consultant for the region, More shops need Slim lines.

Conclusions

From the findings of the study, the researchers concluded that there is a strong relationship between customer service and organisational performance. The more an organisation invests in its customer service the better their chances of outperforming their competitors. Organisations that do not invest much in customer service will also not improve in terms of performance of the company financially or through meeting its objectives and mission. There are few respondents who still do not recognize the importance and positive impact of customer service on organisational performance.

The researchers also further concluded that the selected commercial Bank just like other financial institutions as well the general business community need to invest much in customer service as they will yield them a better return on their customer service investments. It is also concluded that though many participants believed customer service to be of vital role to organisational performance while only a “handful” of participants did not agree with the idea, Selected Commercial Bank might need to carry out a similar research from another different branch for the purpose of comparison of the findings and conclusions as well as recommendations.

Recommendations

The following are recommendations to selected commercial Bank Namibia on the management of Oshikango Branch initiatives that can be adopted to improve the quality of customer service.

The researchers recommend to the top management of selected commercial Bank to keep on investing in the customer service as it contributes to overall organizational performance. Investment in customer service will help selected commercial Bank branch retain and attract more customers yielding much-needed profitability for the financial institution.

The researchers recommend that selected commercial Bank to introduce more ATMs across the Business Centers of Oshikango to provide more banking services alternatives to Customers that will lead to the reduction of long queues in the branch and so enhance the customer service quality. Part of the quality customer service delivery efforts and transparency the bank should provide notifications to all bank charges as more customer visit the bank for bank charges inquiries that lead to long queues and that can be reduced by introducing the cell phone notifications like other big transactions. E-wallet to be more flexible to be accessible to other banks,

Mobile ATM should be made available at all newly proclaimed Settlements, dedicated Home loan consultant for the region, More shops need Slim lines. The bank should introduce more mobile ATM and clear and easy banking instructions that are easy to read in local languages.

The researchers recommend for business coaching desk to provide training to the development of SMEs in the region. In line with the quality customer service improvement, it is further recommended that selected commercial Bank visited Branch should expand the customer banking hall with the provision of sitting spaces for all clients.

The researchers further recommend that Commercial Bank should not only rely on the results of this study to make investment decisions alone. The financial institution and other business organisations are recommended to adopt other methods to establish the relationship between the quality of customer service and organisational performance in line with a Namibian true spirit of Harambee Prosperity Plan and National Development Goals that compels every organisation in both public and private sector to improve customer service delivery. The financial institutions just like other organisations can adopt methods such as the Return on Investment (ROI) whereby they can calculate their output or income generated as compared to what they have invested in it. This can be done by comparing the budget for customer service against the revenue generated during that period. A cost-benefit analysis can also be carried out to find the relationship between customer service and organizational performance. Performance can be in terms of profitability of in terms of achieving the purpose of the organization.

It is also further advised that Selected Commercial Bank just like other financial institutions and business organisations should invest in Research and Development (R&D) as well as marketing research to be fully aware of customer expectations. It is only through research that customer needs will be met. Meeting and exceeding customer expectations amounts to proper customer service as well as establishing relationships with customers rather than a transaction with them.

The researcher also suggests other research be carried out similar to this to establish the relationship between customer service and organisational performance. This will help in clearly coming to a solid conclusion if an independent research is carried out in another sector different from the banking industry to establish the same results.

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Indirect Effect on Trust on Customer Satisfaction and Customer Loyalty Relationship in Malaysian Airline Industry

Li Lin¹, Zahir Osman², Shiqian Wang³

¹ Postgraduate Center, Limkokwing University of Creative Technology, Cyberjaya, Malaysia

Abstract

This research aims to find out the main factors that affect customer loyalty in the airline industry in Malaysia because customer loyalty is regarded as the ultimate goal for the marketing behavior (Heskett, 2002; McMullan & Gilmore, 2008). Gaining customer loyalty and maintaining brand loyalty with customers is critical for the company to survive in a competitive environment (Heskett, 2002). It would contribute and assist airline industry in developing future strategies on how to enhance customer loyalty. In this study, researcher focus on two main factors (customer satisfaction and trust) influence on customer loyalty in direct or indirect pathways. Quantitative research design has been used, and convenience sampling has been chosen to collect data from airline passengers. The findings of this research recommended that customer satisfaction and trust are positively and significantly influence on customer loyalty in the airline industry in Malaysia. Besides, trust was found to have positive and significant mediating effect on the relationship between customer satisfaction and customer loyalty in Malaysian airline industry.

Keywords: Customer Loyalty, Customer Satisfaction, Trust, Airline Industry, Malaysia

INTRODUCTION

Based on Agustin & Singh, (2005) mentioned that it is crucial to obtain and sustain customer loyalty in contemporary marketing and it may be more important than achieving customer satisfaction. In addition, creating and maintaining brand loyalty is fundamental to build long-term relationships with their customers as well as it is critical for the survival of a company in a competitive environment (Heskett, 2002; McMullan & Gilmore, 2008; Mellens, Dekimpe, & Steenkamp, 1996). Airline companies are making efforts to maintain the customer loyalty with existing customers and ultimate retention their airline loyalty. Maintaining valuable customers is an essential precondition for the industry to achieve a sustainable competitive advantage. To gain further understandings, this research studied the factors of customer satisfaction and trusted that affecting customer loyalty in the airline industry. The airline industry as a tertiary and more intangible service industry (Clemes et al., 2008), it plays an important role in the global economy (Tiernan et al., 2008) but none of them are in the hand of airlines control. With the downturn of recent world economic in 2008/2009 which was a hit on the market of business travel and also aviation industry. As a result, the popularity of the low-cost airlines has been increasing in worldwide, so the deregulation practices have been magnified in the airline industry by many countries (Clemes et al., 2008; Saha and Theingi, 2009).

There are two main operators in Malaysian airline industry, they are Passenger airline and Cargo airlines. For the numerous visitors and travelers from globalizing come to Malaysia by international airlines, fierce competition among the airline service providers who are always looking to extend their services to achieve customer loyalty. Based on the statistics of Bursa Malaysia in 2014, the profit of Malaysian Airline has reduced by 60% (RM496.7 million) compared to previous year. The overall revenue of Air Asia's has increased, but the increasing rate dropped about 5% compared to last two years (Bursa Malaysia 2012-2014). One reason was the disasters of MH370, MH17 and QZ8501 happened in 2014 (Joanne, Hunter, & Raghuvanshi, 2014). The disappearance of MH370 causes the sharp decline of customers trust and loyalty towards airline industry in Malaysia (Ayob & Masron, 2014). It comes along with the financial loss of \$1.3 billion over past three years before 2014 for MAS, one more reason is the development of competitors like Air Asia, and they promoted low price ticket which lured away numerous passengers (Zappei, 2014). It also existed many customers complain about Air Asia due to the poor service and experience like flight delay and crash landing incident when they travel (Amiruddin, 2013). The purpose of this paper is to show the mediating effect of customer trust on customer satisfaction and customer loyalty relationship in Malaysian airline industry and to test the hypotheses that are developed from the research model.

LITERATURE REVIEW

Customer Loyalty

Customer loyalty broadly refers to customer behaviors that they are willing to build a long-term and ongoing relationship with a company (Palmatier et al., 2006). Customer loyalty is always regarded as a strategic objective for companies, and it is a critical aspect to determine the development of organizations. At a very general level, loyal customer expresses the feeling of the attachment or affection regarding people, products or services of firms (Jones and Sasser, 1995). The customers desire to repurchase, and they have a preference for the company, as well as they are willing to recommend the product or service to others, which implies that customers desire to remain in a relationship with a company. Practically, loyal customers are willing to buy additional products and spread positive word of mouth to the product or service, who are often worth the marketing effort and their reliability would bring about continuous revenues (Zeithaml, Berry & Parasuraman, 2000). The programs of customer satisfaction could lead to a higher rate of buyer loyalty. However, customer loyalty is regarded transient means there is no guarantee for loyal buyers because today's marketing provides numerous options, the buyer might not be so in the future (Teich, 1997). Customer loyalty has been recognized as the dominant factor which could lead to a business organization's success and sustainability. Chegini, Mehrdad Goudarzvand (2010) suggested an almost comprehensive definition that loyal customer has held a deep commitment to repurchase the preferred products or services consistently in the future.

Customer Satisfaction

Mittal & Frennea, (2010) has defined that customer satisfaction as post-consumption evaluation of customers on a product or service. Arokiasamy, (2013) identified that customer satisfaction is one of the most important judgments concerning to organizations, which is the customer-oriented philosophy and the motivation for modern enterprise to do continues improvement. The marketing concept suggests that when the buyers are satisfied would arouse their behavior and intention of repurchase, which concern that maintaining customer satisfaction is the most important long-term objectives of firms. According to Haumann (2014) in their study revealed that it usually costs more to serve new customers than repeat buyers, which means that repeat customers are more benefit to organizational cost structure. To be an organization, a primary strategic objective is to maximize customer intention rates to buy which emphasis on customer relationship management. A good retention of customer relationship will develop more stable levels of sales it will reduce marketing costs and promote satisfied buyers to do repurchase in future. According to a wide definitions, the generally accepted definition of customer satisfaction is a psychological state that results from consumer experiences after consumption (Rasheed & Abadi, 2014). Whether customer satisfied only depends on a product or service meets or exceeds customers' prior expectations (Sayani, H., 2015).

Pi and Huang (2011), in their study on passengers in CKS International Airport in Taiwan, have found that satisfaction has a positive and significant influence on customer loyalty. Moghadam Tabriz and Khorshidi

(2014) in their investigation on customer satisfaction influence on customer loyalty in the airline industry have revealed that satisfaction has a positive and significant impact on customer loyalty. This is found when they conducted their study on passengers in Mehrabad and Imam Khomeini airport in Iran. In another study, Amin, Leila, and Zahra (2014) when conducted their study Iran private banks customers, found that satisfaction has a strong and significant influence on banks customers' loyalty. Earlier, the same result also found by Naureen and Sahiwal (2013) where their study had confirmed that satisfaction strongly and significant influence the customer loyalty in the banking industry when they conducted their study on bank customers in Pakistan. Liu, Guo, and Lee (2011) have revealed in their study on Taiwan university students that satisfaction has a positive and significant relationship with customers' loyalty. *Given that, it is hypothesized that customer satisfaction has a positive and significant relationship with customer loyalty.*

Trust

In past studies, trust has been defined widely in several ways, and researchers have aware that the confusion in the field (McKnight et al. 2001-2002). Based on previous research, trust has been conceptualized as a set of specific beliefs which primarily refers to integrity, benevolence, and the ability of another party (Haumann, T., Quaiser, B., Wieseke, J., & Rese, M., 2014). According to Gefen et al. (2003), many scholars applied this definition to the commercial activities, especially in an online shopping context. Generally, trust is acknowledged as belief another party (Gefen, 2000; Hosmer, 1995; Moorman et al., 1992), sometimes also called trusting intentions (McKnight et al., 1998). Giovanis (2011) stated that trust means confidence in another party and define trust "as a willingness to rely on an exchange partner in whom one has confidence" or "the willingness' of a party to be vulnerable to the actions of another" (Harris, L. and Dennis, C., 2008). Rempel et al., (1985) underlined that trust reflects in "feelings" of confidence and security to the exchange partner. On the one hand, numerous authors agreed that trust had been considered a belief, sentiment, or expectation about the other party, which is trustworthiness based on the partner's expertise, reliability, and the perception about the partner's past behavior (Gefen, D. and Straub, D. W., 2003). Further, trust has also been viewed as a behavioral intention that reflects a reliance on the partner's good future intentions and involves vulnerability and uncertainty (Pavlou, P., 2003). In this respect, Pavlou, P., (2003) stated that trust is existed in both situations, believes and behavior intention.

Liang (2008) conducted a study on hotels guests in the United States has found that customer trust has a positive and significant influence on customer loyalty in the hotel industry. The study showed that higher level of trust would lead to stronger customer loyalty. Madjid (2013) when did a study on bank customer loyalty in Indonesia has revealed that trust has a strong and positive influence on customer loyalty in Indonesian banks customer loyalty. Kishada and Wahad (2013) in their study on factors influencing customer loyalty in Malaysian Islamic banking have found that bank customers' trust has strongly and significantly affect Islamic banks' customers' loyalty in Malaysian Islamic banking industry. Pratminingsih, Lipuringtyas, and Rimenta (2013) in their investigation on customer loyalty in online shopping industry have revealed that customer's trust plays an important role in determining customer's loyalty. Their study has shown that customer's trust has a positive and significant relationship with customer loyalty in online shopping industry.

The relationship among Customer Satisfaction, Trust, Customer Loyalty

Prior studies have identified that satisfaction was positively correlated with trust (Crosby et al., 1990; Yoon, 2002). It underlined that the overall satisfaction of customers would bring along with a positive impact on his or her trust in this company. According to Kennedy et al. (2001) in their studies displayed that customer satisfaction has a positive and significant impact on trust (Ha et al., 2010). Trust to the service provider can lead to long-term customer loyalty and strengthen the relationship between the two parties (Singh and Sirdeshmukh, 2000). Trust is a special psychological state that can only occur in certain relationships. When a customer trusts a service provider, which indicate that they are confident to the quality of the service and product quality. Customers who trust a service provider could lead to more loyal to the company (Garbarino and Johnson, 1999). Several studies have investigated the relationship between trust and customer loyalty (Luarn and Lin, 2003; Ball et al., 2004; Keh and Xie, 2009). Evidence outlined by Mayer and Davis (1999) showed that t beliefs of trust would lead to trusting intentions (e.g., customer loyalty). Anderson and Srinivasan (2003) further described trust would play an important antecedent towards customer loyalty when company perceived high risk. Most of the studies indicated that there was a positive relationship between trust and customer loyalty, yet based on Finn and

Kayande (1997) in their study revealed that trust has no constructive relationship with loyalty in an online environment. Highly satisfied customers demonstrate their stronger loyalty to their behavior and attitude. Even though customer satisfaction as a major contributor to firm growth (Merrin, Hoffmann, & Pennings, 2013; O'Sullivan & McCallig, 2012), Jones (1996) underlined that customer satisfaction is not the only factor and it's not enough to identify customer loyalty since satisfied customers might defect. In other words, merely rely on satisfaction couldn't measure overall customer loyalty and change customers' spending patterns (Coyles & Gokey, 2002). Thus, customer satisfaction has a positive influence on customer loyalty but not the merely one in today's competitive business environment. Despite the fact that customer satisfaction does not guarantee loyal customers, it is an important antecedent in achieving customer loyalty (Kumar, Pozza, Petersen, & Shah, 2009; Yuen & Chan, 2012; Khan, 2012).

RESEARCH METHODOLOGY

The survey instrument consists of 15 observed variables including the measurement of the independent variable of customer satisfaction (5 items), mediating variable of customer trust (5) items and the dependent variable of customer loyalty (5 items). The scaling adopted in this research is the 5-point Likert scale of 1-strongly disagree, 2-disagree, 3-neutral, 4-agree, and 5-strongly agree.

Sample

Airline customers who are flying with local carriers, Malaysian Airlines, AirAsia, and Malindo were the main respondents in the study. A total of 312 airline customers were requested to complete a questionnaire that contained measures of the construct. The questionnaires were distributed to the respondents in the Klang Valley on the spot by using convenient sampling technique. Out of the 312 distributed questionnaires, 258 were returned. This made up the response rate of 82.7%. In view of that, the rate of response is sufficient for SEM analysis. After deleting some samples with outliers, there are 247 clean samples that are ready for data analysis.

Data Analysis

This study utilizes Partial Least Square (PLS) (Chin, 1988a, b) to assess the models. Wold (1982) developed PLS as a second generation structural equation modeling technique. It works well with structural equation models consist latent variables and a series of cause-and-effect relationships (Gustafsson and Johnson, 2004). Mediation effects are the result of two relationships; between the independent variable and the mediator, and between the mediator and the dependent variable.

RESULTS

Construct Validity, Dimensionality, and Reliability

All constructs were studied to evaluate the construct's validity, dimensionality, and reliability. The average variance extracted (AVE), the AVE square root, composite reliability; R Square, Cronbach's Alpha, and commonality were calculated for each construct. Cronbach's Alpha for individual construct was assessed to obtain the construct validity. The results are shown in Table 1. All constructs achieved a higher Cronbach's Alpha than recommended 0.7 (Hair et al., 2014). After that, AVE and composite reliability and all constructs were evaluated and processed within the model by using PLS evaluation. All the constructs achieved higher than the minimum required for each parameter. (Chin 1988; Stan and Saporta, 2005). Then, based on Geffen and Staub (2005), each construct had its AVE square root extracted to assess construct dimensionality. The results obtained used as a reference when all construct correlated, and each correlation weight within the two constructs has to be smaller than the AVE square root as shown in Table 2.

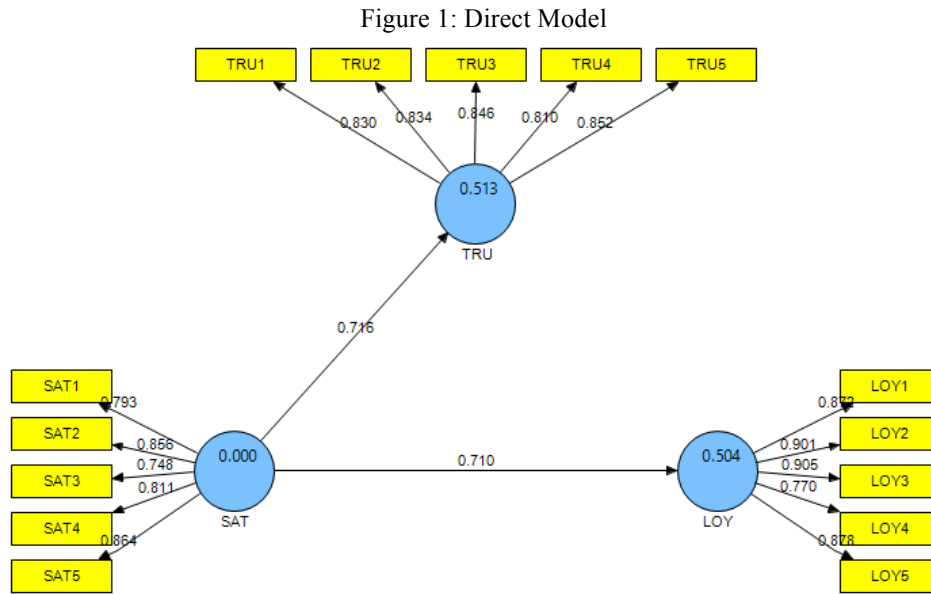


Figure 1: Hypothesized Model Structure and Results

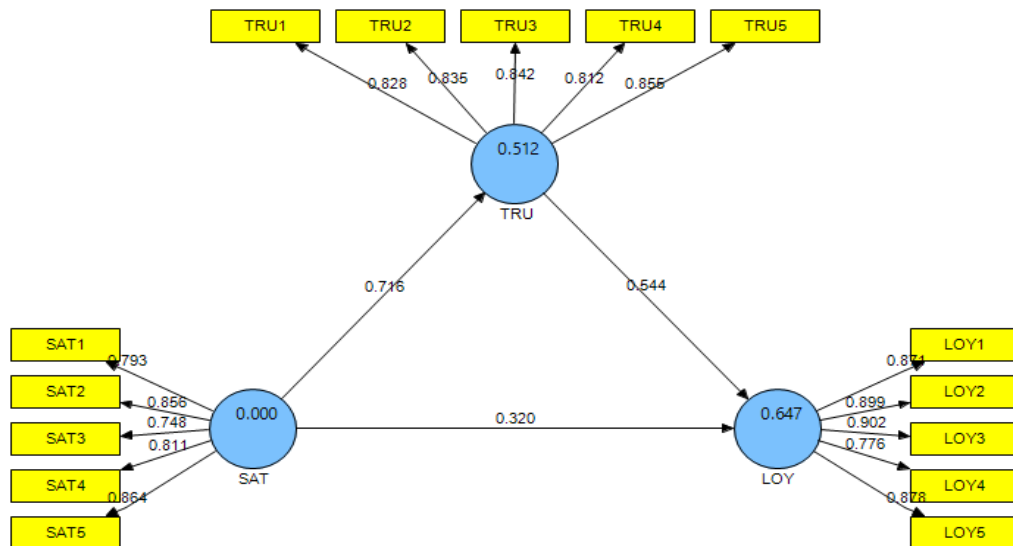


Table 1: Constructs Reliability and Validity

	AVE	AVESqrt	Composite Reliability	R Square	Cronbach's Alpha
LOY	0.751	0.866	0.938	0.647	0.916
SAT	0.665	0.816	0.908	0.000	0.874
TRU	0.697	0.835	0.920	0.512	0.891

Table 2: Variable Correlation Matrix based on AVE Square Root

	LOY	SAT	TRU
LOY	0.866		
SAT	0.709	0.816	
TRU	0.773	0.716	0.835

The cross-loadings showed in Table 3 displays sufficient discriminant validity levels for each construct. Each item factor in the bold value of Table 3 shows higher loading values to the corresponding latent construct and lower loading values to other constructs. The relationship between AVE square roots values and the

correlations among first-order latent constructs embrace the similar conclusion. In Table 2, it is clearly indicated that the square roots of AVE (bold numbers in diagonal) are greater than the correlations among other constructs (off-diagonal values).

Table 3: Cross Loading

	LOY	SAT	TRU
LOY1	0.871	0.648	0.714
LOY2	0.899	0.624	0.663
LOY3	0.902	0.675	0.693
LOY4	0.776	0.512	0.617
LOY5	0.878	0.601	0.655
SAT1	0.555	0.793	0.583
SAT2	0.600	0.856	0.648
SAT3	0.446	0.748	0.483
SAT4	0.628	0.811	0.561
SAT5	0.639	0.864	0.627
TRU1	0.660	0.632	0.828
TRU2	0.651	0.585	0.835
TRU3	0.619	0.614	0.843
TRU4	0.599	0.536	0.812
TRU5	0.690	0.614	0.855

Model Evaluation

To start with, the direct path from satisfaction to loyalty and trust were evaluated. Both links were significant where the path coefficients of 0.710 and 0.716 respectively. At this juncture, no indirect effect was hypothesized or assessed (refer to Figure 1). After that, the model of trust plays a mediating role between satisfaction and loyalty was presented (refer to Figure 2). Mediation is said to exist when the direct path coefficient between the independent variable and dependent variable is reduced when the indirect path through the mediator is established in the model. The direct path is assessed without the interference of mediator and with the intervention of a mediator. The direct path standardized beta was 0.710 and change to 0.320 after the introduction of trust as a mediator.

The amount of the reduction of the relationship between satisfaction and loyalty accounted by the mediator was 0.390 which represent 54.93% of the direct effect. The result shows that the indirect effect of satisfaction to loyalty with the present of trust as a mediating factor is significant at $p < .000$. The significance of mediating effect was computed using PROCESS by Hayes (2012) by utilizing the application of bootstrapping technique where the specific model in question with both direct and indirect paths included and execute N bootstrap re-sampling and explicitly compute the product of direct paths that form the indirect path being assessed. Then, the significance of the mediating effect can be determined by examining either percentile bootstrap or bias-corrected bootstrap which has been shown to have the least biased confidence intervals, greatest power to detect non-zero effects and contrasts, and the most accurate overall Type I error (Williams and MacKinnon 2008).

The result drawn from PROCESS shows that the indirect effect of satisfaction to loyalty with the present of trust as a mediating factor is significant at $p < .000$ where the lower level confidence level (LLCL) is 0.3214 and upper-level confidence level (ULCL) is 0.5308 (Table 6). The indirect effect is significantly different from zero at $p < .000$ (two-tailed). With 95% confidence that, because zero is not within this interval, zero is not likely a value for the indirect effect of satisfaction on loyalty. The true indirect effect is estimated lies between 0.3214 and 0.5308. Therefore, the indirect path satisfaction to trust and from the trust to loyalty was $0.716 * 0.544 = 0.39$. The confidence interval level provided by PROCESS was between 0.3214 and 0.5308, $p < .000$. This shows that the partial mediation effect present. Therefore, all the hypotheses are supported (Table 7).

Table 4: Direct Path Coefficient and T-value

	Path	T-value
SAT==>TRU	0.716	25.57
SAT==>LOY	0.710	25.34

Table 5: Indirect Path Coefficient and T-value

	Path	T-value
SAT==>TRU	0.716	25.35
SAT==>LOY	0.32	6.76
TRU==>LOY	0.544	12.05

Table 6: Indirect effect of X on Y

	Effect	Boot SE	BootLLCI	BootULCI
TRU	0.4151	0.0553	0.3214	0.5308

Table 7: Hypotheses Result

	Hypothesize Relationships	Path Coefficient	T-Value	Conclusion
H1	There is a positive relationship between satisfaction and trust	0.716	25.35	Supported
H2	There is a positive relationship between satisfaction and loyalty	0.32	6.76	Supported
H3	There is a positive relationship between trust and loyalty	0.544	12.05	Supported
		Effect	p-value	Conclusion
H4	There is a positive mediation effect of trust on service satisfaction and loyalty relationship	0.4151	0.000	Supported

DISCUSSION & CONCLUSION

The focus of this study is to build up the mediating effect understanding of trust on satisfaction and loyalty relationship in Malaysian airline industry. Based on previous findings, the model was developed, and it was revealed that satisfaction has a positive and significant direct influence on trust. The same model also showed that satisfaction has a positive and significant direct influence on loyalty. Then, the mediating relationship was introduced in the model where trust was placed as a mediator in the relationship of satisfaction and loyalty. This study used PLS technique data analysis. To begin with, the most accepted relationship between satisfaction and loyalty is validated. The direct relationship path coefficient between the satisfaction and loyalty is 0.710 and is significant. Then, the most accepted theory that connects satisfaction and loyalty also strongly supported with the direct relationship path coefficient between satisfaction and trust is 0.716 and is significant. Then, this study analyzes the mediating effect of trust on satisfaction and loyalty relationship.

The strength of the relationship between satisfaction and loyalty accounted by the mediator was $(0.710 - 0.320) = 0.39$, which equal to 54.93% of the direct effect. Therefore, there is evidence that trust is partially mediates the relationship between satisfaction and loyalty and it also shows that trust as a mediator has mediating influence on satisfaction and loyalty relationship in Malaysian airline sector. This study has shown that trust has a significant impact on satisfaction towards customers' loyalty. The implications with regards to the findings imply that prior to customers to be loyal they should be motivated as high as possible. There is a contribution value of the trust as demonstrated by the findings in mediating the relationship between satisfaction and customers' loyalty.

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Factors Influencing the Behavior Intention of E-Banking Transactions through Mobile Phones in China

Li Lin¹, Shiqian Wang²

¹ Faculty of Postgraduate Center, Limkokwing University of Creative Technology, Inovasi 1-1, Jalan Teknokrat 1/1, Cyber 3, 63300, Cyberjaya, Malaysia.

Abstract

With the growth of using e-banking transactions through mobile phones in China, it brings along with the convenience of people's lives as it enables people to have access to banking services anywhere and at any time as well as it conducts business more effectively. Technology acceptance model (TAM) has been applied in different contexts to examine a wide range of information technology. With mobile transactions popularity, online payments grew 33.8 percent year over year since 2014 (Marketing China, 2015). It is necessary to investigate the factors influence on customers' behavior intention towards the e-banking transactions through mobile phones. The study employed convenience sampling technique to collect data from 500 respondents of e-banking of mobile users. The results revealed that perceived compatibility and mobility significantly affect to perceived usefulness, and further perceived usefulness significantly affect behavior intention of using e-banking through mobiles. It also examined that perceived usefulness as a mediator between the relationship of perceived compatibility and behavior intention as well as the relationship between mobility and behavior intention.

Key Words: Perceived Compatibility, Mobility, Perceived Usefulness, Behavior Intention

INTRODUCTION

With the sky rocking a number of smartphone users and popularizing of internet worldwide, there with the phenomenal growth of e-banking transactions through mobile phones. According to a recent forecast (Internet world, 2015), e-commerce would be dominated by smartphone technology in 2017. It was developed 45% e-consumers in Asia have been doing online transactions through smartphones (Criterio, 2014). Based on data of China Financial Certification Authority (2015) underlined that 35.6% customers utilize online banking while 17.8% of them use mobile banking, and the number of clients using e-banking through mobile increased 50% year-on-year. As the popularity of mobile banking has increased, there are a variety of mobile-commerce services, which include mobile shopping, mobile financial and mobile entertainment as well as it would search information through mobile (Khalifa & Shen, 2008). Thus, mobile developed to be a commerce device that deliver unique value to users by extending the boundaries set by traditional e-commerce devices (Raisinghani & Hanebeck, 2002; Balasubramanian et al., 2002). Technology is considered to be the key driver put forward the world changing promptly around us. The wide use of internet and technology advancement in, it leads to improving e-banking services of various banks technology-based systems play an important role for companies

interact with customers. E-banking of Mobile phones has been widely using in both developing and developed countries as well as it is great potential to extend the provision of financial services. Mobile banking refers to the execution of transactions with monetary value with the application of wireless communications networks and devices. It developed an important self-service delivery channel that allows customers via the web services technology and mobile services banks to gain information and service.

LITERATURE REVIEW

Technology Acceptance Model

Davis (1989) posited that technology acceptance model (TAM) refers to a cost-benefit paradigm based on users' cognitive evaluations on a certain action and its result, and it has been used to predict individual's intention to buy and use a particular piece of technology (Davis, 1989; Davis et al., 1989). TAM targeted on the evaluation of end-users. With the increase of smartphone users, it has also been applied to evaluate mobile e-banking transactions. TAM has been conducted from a task-oriented perspective. While the popularity of smartphones is closely connected to people's lives, which indicated that the widespread of mobile e-banking relies on its capability in facilitating online transactions quickly and conveniently. In order to study the association of perceived mobility, perceived compatibility, perceived usefulness and behavior intention model, the research model is conducted as presented in Figure 1. Based on the technology acceptance model 2 (TAM2) that suggested by Venkatesh and Davis (2000), perceived usefulness is one of the determinants of users' behavior intention to use technology. This study also looks out antecedents of perceived usefulness.

Perceived Compatibility

Compatibility refers to a perceived innovation which regarding to the degree of consistency of existing values, past experiences, and needs of potential adopters (Rogers, 1983). Compatibility is regarded as an antecedent of Roger's diffusion of innovation (DOI) theory, has been widely quoted in researchers that investigate the factors influence on the penetration of innovative technologies (Mallat et al., 2009; Chen et al., 2002; Wu & Wang, 2005). Further described innovations successful appears to be especially when users are able to adopt them seamlessly. The more compatible the innovation, the faster the adoption rate will increase. Smartphones have been diffusion in many domains of human activities including education, work, entertainment and social relationships. This penetration is useful for establishing users' values and experiences. Smartphones have been deeply penetrating into people's lives. Many users even feel uneasy to spend a day without their phone that carries their entire virtual presence and organizes their daily activities. If a user perceives anxious without the device which means the phone is compatible with their values and experiences, other mobile-services will be adopted.

Mobility

Kim et al., (2010) underlined that perceived mobility refers to the degree of prospective benefits which are provided by mobile technologies, which includes the information access, communication, and services anytime and anywhere. Most studies found mobility was an antecedent of adopting mobile service and influenced on users' intention (Schierz et al., 2010, Kaba and Osei-Bryson, 2009). As noted by Schierz et al., (2010) individual mobility as a major contributor to intention to use mobile e-banking services, and Kaba and Osei-Bryson (2009) further described that mobility is capable of affecting mobile phones use in Quebec. Consequently, flexibility and accessibility have been identified as a major contributor to mobile-commerce adoption (Kim et al., 2010). Likewise, the strong mobility of smartphone technology has already integrated users' lives with which they can conduct mobile payment services anywhere and at any time (Mathew et al., 2004).

Perceived Usefulness

Perceived usefulness refers to the subjective assessment of expected users using a specific application system will increase their exist context (Venkatesh and Davis, 2000). Based on TAM2 theory (Venkatesh and Davis, 2000) mentioned that perceived usefulness and perceived ease-of-use directly influenced on users' intention. Evidence outlined by Davis (1989), "people tend to use or not use an application to the extent they believe it will help them perform their job better". Perceived usefulness signifies that the degree of customers' assessment on

making transactions via a smartphone will make business more convenience and efficient his or her performance (Davis, 1989).

Behavior Intention

Behavior intention is defined as consumer readiness and likelihood to use a special piece of technology (Peña & Brody, 2014; Ajzen, 1991). With the diffusion of smartphones, the wireless mobile-service have already integrated into users' lives, which means they are willing or intend to apply the e-banking transactions through mobile phones. Behavior intention is the only dependent variable in this study. Prior studies identified many factors that might affect behavior intention such as perceived ease of use, social influence, or mobility (Venkatesh, & Morris, M., 2000; Yseen, Pederson, P.E. & Thobjornsen, 2005). Based on the technology acceptance model 2 (TAM2) that suggested by Venkatesh and Davis (2000), perceived usefulness is one of the determinants of users' behavior intention to use technology.

The relationship among Perceived Compatibility, Mobility, Perceived Usefulness and Behavior Intention

Evidence outlined by Kim et al. (2010) mobility had a positive effect on the perceived usefulness of mobile payment, while Schierz et al. (2010) reported that there is not a positive relationship between individual mobility and perceived usefulness in the context of mobile e-banking transactions services. As noted by Kim et al. (2010) reported that mobility has no positive influence on the perceived usefulness of mobile payment. However, several previous mobile types of research investigated that there was the positive influence of perceived usefulness on users' intention (Xue et al., 2012, Kim et al., 2010, Wu et al., 2011, Chen et al., 2009). Based on (Mallat et al., 2009) suggested that compatibility has a positive effect on consumers' intention to use mobile e-banking. Chen et al. (2002) further described that compatibility has a positive effect on consumers' behavior intention toward utilizing a virtual store. Meanwhile, Wu & Wang (2005) has notified that compatibility was capable of affecting the perceived usefulness of mobile-commerce. Several previous mobile types of research has examined the consistency of users' needs, values, and past experiences to make a purchase via a smartphone, and the compatible innovation as one determinant of perceived as useful, the results identified that there was a positive relationship between usefulness and intention to adopt an application (Segars & Grover, 1993; Szajna, 1996; Ha et al., 2007), such as mobile-games (Ha et al., 2007) or electronic mail systems (Szajna, 1996).

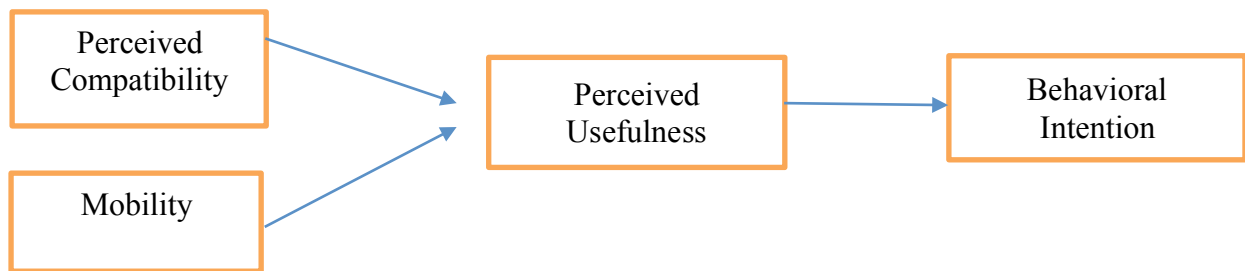
RESEARCH METHOD

The quantitative research approach was adopted using an online questionnaire survey with a 5-point Likert scale to measure the dependent variable and independent variables. Behavior intention as a dependent variable. A total of 800 email invitations were sent to potential respondents, which adopted convenience sampling technique, 500 out 800 completed questionnaires were valid for analysis after screening and filtering. The measurement instrument used questions from previous research. The measurement of behavior intention adopted from Lu and Su (2009) and Chen et al. (2002), while the questions adopted for measuring the independent variables were as follows: 'perceived usefulness' adopted from Yu et al. (2005); the scale of 'compatibility' was adopted from Chen et al. (2002) and Vijayasarathy (2004); 'mobility' was adopted from Hong et al. (2008). The research model in Figure 1 below illustrates the factors that have been hypothesized affecting users' behavior intention to use e-banking transactions through mobile phones.

Research Hypotheses

- H1: There is a positive relationship between perceived compatibility and perceived usefulness.
- H2: There is a positive relationship between mobility and perceived usefulness.
- H3: There is a positive relationship between perceived usefulness and behavior intention.
- H4: There is a mediating effect of perceived usefulness between compatibility and behavior intention.
- H5: There is a mediating effect of perceived usefulness between mobility and behavior intention

Figure 1



ANALYSIS AND FINDING

From table 1 it displayed that the correlation coefficients for each path, that is, the links between each of the variables are statistically significant. These results indicate that, at the bivariate level, each of the conditions necessary to test for the possible role of a mediator has been met. In order to conduct the Sobel test for mediation (Sobel, Michael E. 1982).

Firstly, to compute the raw regression coefficient and the standard error for this regression coefficient for the association between the IV and the mediator,

Secondly, to test the association between the mediator and the DV.

Lastly, to compute the regression coefficient and standard error for the association between the IV and the mediator.

Table 1: Direct Relationship Correlations and P-value – Mediation Model

average_PC	average_PC	average_PU	average_BI
Pearson Correlation	1	.567	.411
Sig. (2-tailed)		.000	.000
averagePU		1	
Pearson Correlation	.567**		.506**
Sig. (2-tailed)	.000		.000
average_BI			1
Pearson Correlation	.411**	.506**	
Sig. (2-tailed)	.000	.000	

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

Table 2: Coefficient- Perceived Compatibility and Perceived Usefulness

1	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	1.816	.128		14.243	.000
	average PC	.513	.035	.567	14.877	.000

a. Dependent Variable: average_PU

Table3: Coefficient– indirect relationship with mediation

1	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	1.381	.165		8.354	.000
	average_PC	.173	.045	.182	3.822	.000
	average_PU	.423	.050	.403	8.449	.000

Dependent Variable: average_BI

Table 4: Sobel test– P-value of indirect relationship with mediation

	Input		Test statistic	Std. Error	p-value
a	1.81	Sobel test	7.33870968	0.10358769	0
b	0.42	Aroian test	7.32643006	0.10376131	0
s _a	0.12	Goodman test	7.35105125	0.10341378	0
s _b	0.05				

It signifies that all the links between each variable are significant at the 0.000 level (Table:1) Further to test the indirect effect of perceived compatibility to behavior intention with the present of perceived usefulness as a mediating factor is significant at $p < .000$ (Table:3) based on Sobel test described by Baron and Kenny (1986), Sobel (1982), Goodman (1960), and MacKinnon, Warsi, and Dwyer (1995), it is used to test of whether the indirect effect of the IV on the DV via the mediator is significantly different from zero through inserting the a, b, s_a, and s_b into the cells (Table 4) and this program will calculate the critical ratio. In this model, the test statistic of the Sobel test is 7.33, with an associated p-value of .00. The result revealed that the observed p-value is below the established alpha level of .05 indicates that the association between the IV and the DV, which means that there is a mediating effect of perceived usefulness between perceived compatibility and behavior intention in the model.

Summary of Findings

Hypothesizes Relationship	Path Coefficient	p-value	Conclusion
H1 There is a positive relationship between perceived compatibility and perceived usefulness.	0.567	0.00	Supported
H2 There is a positive relationship between mobility and perceived usefulness.	0.411	0.00	Supported
H3 There is a positive relationship between perceived usefulness and behavior intention	0.506	0.00	Supported
H4 There is a mediating effect of perceived usefulness between compatibility and behavior intention.		0.00	Supported
H5 There is a mediating effect of perceived usefulness between mobility and behavior intention.		0.00	Supported

RECOMMENDATION

Through identifying the factors influence on perceived usefulness, it is the degree of customers assessment on making transactions via a smart-phone in this study and further examines the factors that direct and indirect effect customers' behavior intended to achieve the development of e-banking transactions through mobile phones and diffusion of e-commerce. It recommended the research and development team should pay more attention to the functions of compatibility Mobility of e-banking of Smartphones in order to increase customers' perceived usefulness. Perceived usefulness signifies that flexibility and accessibility have been identified as a major contributor to mobile-commerce adoption. The positive relationship between perceived usefulness and behavior intention signifies that the degree of customers' assessment on making transactions via a smart-phone will make business more convenience and efficient his or her performance.

CONCLUSION AND DISCUSSION

This study intends to estimate the factors influence on users' behavior intention of using e-banking transactions through mobile phones in China. The results revealed that perceived compatibility has a positive and significant direct effect on perceived usefulness, it consistent with previous studies (Wu & Wang, 2005; Szajna, 1996; Ha et al., 2007), and mobility significantly affect to perceived usefulness in lines with past studies (Kim et al., 2010; Schierz et al., 2010), and further perceived usefulness significantly affect behavior intention in lines with past studies (Xue et al., 2012, Kim et al., 2010). It also examined that perceived usefulness as a mediator between the relationship of perceived compatibility and behavior intention as well as the relationship between mobility and behavior intention. With the growth of using e-banking transactions through mobile phones in China, it brings along with the convenience of people's lives as it enables people to have access to banking services anywhere and at any time, yet there was lack of researchers on the mediating effect of perceived usefulness on users' behavior intention. The theoretical contribution is this research supplemented the gap of research on users' behavior intention. It also practically provide direction for marketers and management the relative importance various key factors that might affect the behavior intention of mobile phone users. The research and development team should pay more attention to the functions of compatibility Mobility of e-banking of Smartphones in order to increase customers' perceived usefulness, and further raise the customers' behavior intention which is beneficial to increase the degree of customers' assessment on making transactions via a smart-phone will make business more convenience and efficient.

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Human Capital Development and Poverty Reduction in Nigeria

Dennis Brown Ewubare¹, ThankGod Mark²

¹ Department of Agricultural and Applied Economics, Rivers State University, Port Harcourt, Nigeria, dennisewubare@yahoo.com, +234-8037068750

² Department of Agricultural and Applied Economics, Rivers State University, Port Harcourt, Nigeria.

Abstract

This paper analyzed the link between human capital development and poverty reduction in Nigeria between 1990 and 2016. In specific terms, the effects of primary and secondary schools enrolments, as well as public and private healthcare expenditures on poverty level, were examined. The data required for the analysis were culled from the National Bureau of Statistics and World Bank World Development Indicators. Fully Modified Least Squares and Granger causality test in addition to ADF unit root and Johansen-Juselius cointegration tests were employed as data analysis techniques. It is evident from the unit test result that the variables are mixed integrated with the order of integration ranging from zero to one. The trace and Max-Eigen statistics for cointegration tests indicate that two cointegrating equations exist in the model. The implication of this finding is that underlying measures of human capital development and poverty level have long run relationship. The cointegrating regression result shows that primary school enrolments, secondary school enrolments, and public healthcare expenditure are significantly related to poverty level while private healthcare spending does not exert significant influence on poverty level. A percentage increase in primary school enrolment reduces poverty by 0.697 percent while a percentage increase in secondary school enrolment contracts poverty by 0.84 percent. Similarly, a percentage increase in public healthcare spending, on the average, reduces poverty by 16.63 percent. This is indicative that public sector spending in the health sector is robust in reducing the level and depth of poverty in Nigeria. The Granger causality test results also show that joint causality runs from the explanatory variables to the poverty level. Given this finding, it is recommended among others that Policymakers should ensure that poverty reduction strategy in Nigeria provides for increased access to education through gross primary and secondary school enrolments and public healthcare

Keywords: School Enrolment, Public and Private Healthcare Expenditures, Poverty Reduction

1.1 Introduction

Human capital development has remained at the forefront of strategies for reducing poverty in both low and middle-income countries. This is based on lessons from developed economies where their success, to a great extent, is linked to increased and sustained investment in human resources. Broad-based growth in the forms of social, political and economic transformations is driven by the development of human capital (Harbison and Charles, 1964 as cited in Allahdadi and Aref, 2011). Numerous indicators of human capital development such as quality and improved access to education, healthcare, and nutrition are crucial for alleviating poverty – either

headcount or multidimensional. It is important to note that the quality of education and healthcare delivery have remained at the center of human capital development in low and relatively medium-income countries.

Raja (2000) observed that the centrality of education in human capital development by identifying it as the first step in the process of development. This is because of the dual roles of increasing productivity and reducing poverty education is perceived to play in any economy. Pervez (2014) opined that education provides a roadmap for building human capacity and facilitates sustained growth through knowledge and skills. The importance of education in enhancing human capital is further elaborated by Kim and Terada-Hagiwara (2010) as they claimed that well-educated working population facilitates the adoption of new technology and production methods that are crucial for reducing high trace of poverty.

Like other richly blessed members of the Organization of Petroleum Exporting Countries (OPEC), Nigeria has shown a very high trace of poverty and low human development index. The Human Development Report (UNDP, 2003) indicates that Nigeria is one of the poorest among the poor countries of the world. Again, the UNDP (2008) reveals that Nigeria is ranked 154 out of the 179 countries in terms of human development. It is equally ranked 30th in gender-related development index (Chikelu, 2016). These figures point to the fact that human resource development in Nigeria is quite low and has not improved in recent time. Although successive governments in Nigeria have adopted various strategies and pursued numerous programmes to improve the quality of human resources with a view to reducing the growing levels of poverty, the associated outcomes have not been very impressive considering the growing incidences of poverty in both urban and rural areas. This has provoked several empirical investigations to gain more information on the human resource development-poverty relationship with controversies surrounding the outcomes of the various empirical investigations. In the light of the foregoing, this paper explored the implications of human capital development on poverty reduction drawing an empirical lesson from Nigeria between 1990 and 2016.

1.1 Statement of the Problem

Nigeria is, undoubtedly, one of the most endowed countries in the world in terms of abundant natural and human resources. However, poor human development index and a high trace of poverty have continued to limit the country's potentials in competing effectively in the global economic environment. The National Bureau of Statistics (2005) report indicates that over half of the population lives below the poverty threshold with 35 percent of the population living in extreme poverty while 54 percent of the population is trapped in relative poverty. These high traces of poverty is an indication that Nigeria is performing below expectation in terms of meeting the Sustainable Development Goals (SDGs), especially eliminating poverty by 2030. This has remained a major source of concern to the government and other relevant stakeholders.

Furthermore, governments' commitment to human resource development has not been very impressive. This is evident in the poor funding of human development programmes. It is worrisome that the education sector is grossly underfunded as budgetary allocations to the sector fall short of 26 percent recommended by the United Nations Educational and Scientific Organization (UNESCO). Additionally, the health status of Nigerians has been in a state of devastation in the past two decades. For instance, the CIA World Fact Book (2012) revealed that the average life expectancy in Nigeria stood at 46.76 percent with the male and female life expectancy

averaging 46.76 years and 48.41 years respectively. More so, Nigeria's socio-economic outlook in terms of human development index has been very poor. The UNDP (2008) clearly indicates that Nigeria is far behind her West African counterparts such as Ghana, Senegal, and Cameroun in terms of human development index. This has raised much concern in different quarters regarding the dimensions of human resource index and their relative importance in alleviating poverty. Accordingly, this paper is designed to examine the effectiveness of primary and secondary school enrolments as well as private and public healthcare expenditures in reducing poverty in Nigeria.

2. LITERATURE REVIEW

Several schools of thoughts are of the view that human capital development is vital to poverty reduction. However, some empirical evidence support these claim while others conflicted with it. The literature review in this paper focused on both the theoretical framework and past empirical studies.

2.1 Theoretical Framework

2.1.1 Human capital theory

The development of the human capital theory is originally credited to Becker (1964). The theory emphasized on the skills, knowledge and health status of the population that are important in determining their productivity and welfare. Davis and Sanchez-Martine (2014) opined that a particular aspect of neoclassical economics dwells on individual choices in relation to education, training, and mobility in explaining varying outcomes in the dimensions of human development. Lydall (1968) further explained that variation in the combination of intelligence, environment, and education at the individual tends to account for most of the gaps in personal earnings. The level of human capital acquired by an individual is a direct function of educational attainment. Machin (2009) observed that the under-investment of poor households in many countries in education is a major cause of increasing levels of poverty in these countries. Thus, Davis and Sanchez-Martine (2014) opined that the policy option that emanates from this human-capital-oriented perception of poverty is that the increased spending on the education helps the poor to attain improved earnings potentials.

Scott et al. (2000) identified adult education as an important tool in improving the level of skills acquired by those who do not have the opportunity of benefiting from normal. This is suggesting that people improve their socio-economic status through by investing in their skills and knowledge. In contrast, not investing in skills has been identified by Pemberton et al. (2013) to trigger low earnings and poverty. This tends to reinforce the vicious cycle of development. More so, health status is identified in the human capital theory as a major component of the individuals' stock of human capital and as such influences the likelihood of the incidence of poverty. Poor health status lowers the likelihood of finding work or being able to work at all and hence a higher probability of ending up poor (Reinstadler and Ray, 2010). This is similar to the assertion of Buddelmeyer and Cai (2009) that the participation of individuals with severe in the labor market may make them less likely to possess the abilities required for relatively high paid jobs, thus reducing their marginal productivity.

2.1.2 Keynesian Theory of Poverty

Keynes (1936) proposed this theory following the assumption that underdevelopment in its multidimensional nature causes poverty. Keynesian economists are of the viewpoint that unequal initial endowment in terms of

talent, skills, and capital exist which determines an individual's level of productivity. Jung and Smith (2007) observed that in the view Marshall and Keynes poverty occurs as a result of economic underdevelopment and lack of human capital. Furthermore, the prevalence of poverty in the Keynesian perspective is conceived as the misfortune of certain minorities who are out of work, cannot work or are not expected to work, although they wish to do so. It, therefore, follows that the state needs to intervene by providing some expenditure packages that fine-tune the economy through the stimulation of aggregate demand. High level of human capital such as improved health status and education tend to reduce the incidences of poverty due public sector intervention. This is an indication that, the intervention of the public sector through increased expenditure component in the education and healthcare sectors is imperative for poverty reduction. Notwithstanding the contributions of the Keynesian theory to economic literature, it has experienced some drawbacks for ignoring the common scenario in developing economies in which the multiplier effects of fiscal expansion is located in abroad.

2.2 Conceptualization of Human Capital Development

The concept of human capital development encompasses a conglomerate of investments in such areas as education, health, training, and migration that boost the productivity of an individual in the competition in the labor market. Allahdadi and Aref (2011) opined that human capital relates to the skills and abilities of people, as well as the ability to gain outside resources and bodies of knowledge in order to stimulate understanding and to identify dynamic practices. The accumulation of human capital is crucial to the development process and has long-term effects in the alleviation of poverty. The process of human capital development is complex, dynamic and incremental, and cut across a whole life endeavor. A variety of factors play important roles in the process of human capital development. Prominent among them are health care, education and technological advancements amongst others.

According to Organization for Economic Cooperation and Development (OECD, 1998), human capital defines "the knowledge, skills, competencies and other attributes embodied in individuals that are relevant to economic activity." From the economics point of view, expenditures on education, training, medical care and more are regarded as investments in human capital. This is because people are highly connected to their skills, knowledge, health, or values as their great assets. Sound macroeconomic policy framework enhances better health status, thus, allowing for higher human capital development. Education, training, and healthcare are key components of human capital development. This is supported by both theory and empirical evidence.

2.3 Empirical Literature

Several cross country and country case studies have explored the roles played by human capital development in reducing poverty. The findings from these studies are mixed and varied across various locations and economic blocs. Chikelu (2016) explored the link between human capital development and poverty reduction in Nigerian economy over the period 1986-2012. The Ordinary Least Squares (OLS), Augmented DickeyFuller and Johansen Co-integration methods were utilized in estimating the model with poverty rate as the response variable while primary school enrolment, secondary school enrolment, tertiary school enrolment and per capita income are the predictor variables. The study found evidence of a long run relationship between human capital development and poverty reduction in Nigeria. Hence, the study recommended for improvement in the quality of human capital development in Nigeria.

Allahdadi and Aref (2011) analyzed the role of human resource development in poverty alleviation in rural areas of Marvdasht, Iran. Focus group discussion formed the basis for data collection, and the analysis followed descriptive statistics approach. It was revealed from the empirical analysis that there was a little effort to building a human resource for poverty alleviation. The result also shows evidence of high of education among local people while rural areas are found to face some challenges which hinder their participation in poverty alleviation. The study, however, recommended for a shift in the perception of human capital in knowledge-based economies.

Pervez (2014) assessed the impact of education on poverty reduction in Pakistan using time series annual observations. The Augmented Dickey-Fuller (ADF), causality and Johansen cointegration methodologies were used in testing for the existence of a long run relationship among the series. From the result, it was observed that literacy rate and gross secondary school enrolment have a negative and significant impact on poverty in the long run while life expectancy is positively related to poverty. Therefore, the study suggested that government should focus on the quantity and quality of education that promotes more researchers in the country.

Self and Grabowski (2004) studied the relationship between education and income growth in India. They categorized education into primary, secondary, and tertiary to determine whether education, for each category, has a casual impact on growth. The study further decomposed education variables along gender lines and analysis is carried out to determine whether the casual results vary by gender. The results show that primary education has a robust casual impact on growth than the impact for secondary education. The result also showed that female education at all levels has the potential for generating economic growth while the male has a significant impact on growth only at primary level.

Risikat (2010) investigated the impact of investment in education on economic growth in Nigeria. The study followed the standard growth-accounting model and relied on cointegration and error correction techniques for analyzing the data for each of the variables. The study revealed that investment in the Nigerian educational sector is quite low and fall below the recommendations of the United Nations. It was also found that investment in education has a robust positive relationship with economic growth in Nigeria.

Khan, Iqbal, and Rehman (2016) examined the role of human capital in reducing poverty dilemma in the district Karak Khyber Pakhtunkhwa of Pakistan. The study used primary data, gathered through a comprehensive questionnaire from a randomly selected sample of 150 households at the tehsil level in the sampled district. The logistic regression model was used to explore the variety of human capital factors ranging from the level of education and training programs amongst others. The results showed that education, technical training, and availability of employment opportunities are significant in reducing poverty in the study area. It was further gathered from the results that the incidences of poverty are high in the rural area than urban areas.

Awan, Iqbal, and Waqas (2011) investigated how different levels of education and experience affect urban poverty in the city of Sargodha in Pakistan. The study relied on a survey-based analysis on a sample of 330 households. The poverty status of the household was measured using adjusted official poverty line. It was gathered from the findings that education and experience are negatively related to the poverty status of

individuals. This is an indication that education of the poor is necessary for breaking the vicious circle of poverty. The study, therefore, recommended for collaborative efforts by key stakeholders in investing in education with special focus on primary and middle education with a view to increasing the productivity of the poor through education.

3. METHODOLOGY

3.1 Research Design

In this paper, an ex-facto research design is employed. This choice of this research design was prompted because the data used for the analysis already exist and as such is devoid of any form of manipulation.

3.2 Model Specification

This paper adopts a dynamic cointegrating regression model. The model is anchored on the human capital theory which assumes that education including skills and knowledge as well as health status is important in determining productivity and welfare. The model is patterned after the work of Chikelu (2016) with some improvements following the addition of public and private healthcare expenditure as a share of GDP in the explanatory variables. The functional form of the model is expressed as:

$$PORV = f(TPE, TSE, PUH, PRH) \quad (3.1)$$

Where: PORV = poverty level, TPE = total primary school enrolment, TSE = total secondary school enrolment, PUH = public healthcare spending as a share of GDP and PRH = private healthcare spending as a share of GDP. The econometric representation of the model is provided in a linear form in equation (3.2)

$$PORV_t = \pi_0 + \pi_1 TPE_t + \pi_2 TSE_t + \pi_3 PUH_t + \pi_4 PRH_t + e_t \quad (3.2)$$

Where: PORV, TPE, TSE, PUH and PRH are described in equation (3.1)

π_0 = constant regression estimate, $\pi_1 - \pi_4$ = slope regression estimates and e_t = random error term.

The vector autoregressive (VAR) model for estimating the causal relationship among the series are formalized as:

$$\Delta PORV_t = a_1 + \sum_{i=1}^n d_{11} \Delta PORV_{t-i} + \sum_{i=1}^n d_{12} \Delta TPE_{t-i} + \sum_{i=1}^n d_{13} \Delta TSE_{t-i} + \sum_{i=1}^n d_{14} \Delta PUH_{t-i} + \sum_{i=1}^n d_{15} \Delta PRH_{t-i} + U_{1t} \quad (3.3.1)$$

$$\Delta TPE_t = a_1 + \sum_{i=1}^n d_{21} \Delta TPE_{t-i} + \sum_{i=1}^n d_{22} \Delta PORV_{t-i} + \sum_{i=1}^n d_{23} \Delta TSE_{t-i} + \sum_{i=1}^n d_{24} \Delta PUH_{t-i} + \sum_{i=1}^n d_{25} \Delta PRH_{t-i} + U_{2t} \quad (3.3.2)$$

$$\Delta TSE_t = a_1 + \sum_{i=1}^n d_{31} \Delta TSE_{t-i} + \sum_{i=1}^n d_{32} \Delta PORV_{t-i} + \sum_{i=1}^n d_{33} \Delta TPE_{t-i} + \sum_{i=1}^n d_{34} \Delta PUH_{t-i} + \sum_{i=1}^n d_{35} \Delta PRH_{t-i} + U_{3t} \quad (3.3.3)$$

$$\Delta PUH_t = a_1 + \sum_{i=1}^n d_{41} \Delta PUH_{t-i} + \sum_{i=1}^n d_{42} \Delta PORV_{t-i} + \sum_{i=1}^n d_{43} \Delta TPE_{t-i} + \sum_{i=1}^n d_{44} \Delta TSE_{t-i} + \sum_{i=1}^n d_{45} \Delta PRH_{t-i} + U_{4t} \quad (3.3.4)$$

$$\Delta PRH_t = a_1 + \sum_{i=1}^n d_{51} \Delta PRH_{t-i} + \sum_{i=1}^n d_{52} \Delta PORV_{t-i} + \sum_{i=1}^n d_{53} \Delta TPE_{t-i} + \sum_{i=1}^n d_{54} \Delta TSE_{t-i} + \sum_{i=1}^n d_{55} \Delta PUH_{t-i} + U_{5t} \quad (3.3.5)$$

Where: a_1 = intercept, $d_{11} - d_{55}$ = coefficient of the explanatory variables, Δ = First difference operator, n = maximum lag order and $U_{1t} - U_{5t}$ = random error terms.

3.3 Description of Variables and Data Sources

The dependent variable in this study is poverty level while gross primary and secondary school enrolments as proportions of total enrolments as well as private and public healthcare expenditures (as shares of GDP) were included as measures of human capital development (explanatory variables). Apart from data on poverty level culled from National Bureau of Statistics, data for the other variables in the model were extracted from World Bank WDI.

3.4 Method of Data Analysis

This Fully Modified Ordinary Least Squares (FM-OLS) developed by Phillips and Hansen (1990) was used in estimating the cointegrating regression model. This method of data analysis was selected given that it is helpful in overcoming some of the weaknesses associated with the static OLS. As a semi-parametric correction of the OLS estimator, the FM-OLS is asymptotically equivalent to maximum likelihood and yields median-unbiased and asymptotically normal estimates, so that the model overcomes the problem of serial correlation and conventional techniques for inference are valid. Additionally, the causality relationship among the series was examined using vector autoregressive (VAR) model. Some diagnostics tests carried out in the cause of this study were discussed below:

i. Unit Root Test: The unit root test was carried out using the Augmented Dickey Fuller (ADF) method as proposed by Dickey and Fuller (1981). Specifically, the null hypothesis of a unit root (non-stationarity) was tested against the alternative hypothesis of no unit root (stationarity) in each of the variables at 5 percent level. The algebraic form of the unit root is expressed as:

$$\Delta(X_t = m_0 + m_1(Y_{t-1}) + \sum_{i=1}^q \beta_i \Delta(X_{t-i}) + E_t \quad (3.4)$$

Where: X_t = variable being tested for unit root, m_1 and β_i = parameter estimates, q = maximum order of lag, Δ = notation for first difference, E_t = Error term

ii. Cointegration Test: This paper adopted Johansen and Juselius (1990) cointegration procedure, a multivariate-based approach for differenced stationary series. The null hypothesis of no cointegration was tested against the alternative of cointegration. The tests statistics (Trace and Maximum Eigen value statistics) are based on 5 percent level of significance. The model for the cointegration test is specified as:

$$J_{trace}(r) = -N \sum_{i=r+1}^n \log(1 - \hat{\lambda}_i) \quad (3.5)$$

$$J_{max}(r, r+1) = -N \log(1 - \hat{\lambda}_{r+1}) \quad (3.6)$$

Where: $F_{trace}(r)$ and $F_{max}(r, r+1)$ denote Trace and Max-Eigen statistics respectively

$\hat{\lambda}$ = coefficients of the characteristic roots, N = sample size, r = cointegrating vectors
 n = lag length and \log = notation for logarithm transformation

4. RESULTS AND DISCUSSIONS

4.1 Descriptive Analysis of the series

The descriptive statistics for the variables which dwelled mainly on the mean, minimum and maximum values, standard deviation and normal distribution of the series are presented in Table 4.1.

Table 4.1: Descriptive statistics for PORV, TPE, TSE, PUH, and PRH

	PORV	TPE	TSE	PUH	PRH
Mean	68.57222	93.70222	37.69278	1.071667	2.580556
Median	69.50000	93.28500	34.72500	1.000000	2.585000
Maximum	88.00000	101.6700	55.70000	1.470000	3.140000
Minimum	46.00000	83.76000	23.42000	0.620000	1.810000
Std. Dev.	10.09187	5.470299	10.34535	0.232588	0.365553
Jarque-Bera	0.180020	0.774442	1.334079	0.538247	1.177238
Probability	0.913922	0.678941	0.513226	0.764049	0.555093
Observations	18	18	18	18	18

Source: Calculated by the Author from E-views 9 statistical package

Table 4.1 presents the descriptive statistics for the series in the model. It was clear from the results that poverty level averaged 68.57 percent, indicating that over half of the populations are in poverty. The result equally indicates that the minimum and maximum levels of poverty over the study period (1990-2016) are 46 percent and 88 percent respectively. The average primary and secondary school enrolments as shares of the gross school enrolments are 93.70 percent and 36.69 percent respectively. This is indicative that the access to primary education is beyond that of secondary education by 57.11 percent. Additionally, public healthcare spending as a share of GDP is associated with the mean value of 1.07 percent while private healthcare spending averaged 2.58 percent. The maximum values of healthcare expenditure (as a share of GDP) are 1.47 percent for public healthcare spending and 3.14 percent for private healthcare spending. The respective standing deviations for the variables indicate that the observations for the series converged around their respective mean values. It was also discovered from the Jarque-Bera statistics that the errors in each of the variables are normally distributed.

4.2 Test for Unit Root

The unit root test was performed at 5 percent level using ADF approach. The results are displayed in Table 4.2.

Table 4.2: Unit root test results

Variable	Levels test results		1 st diff. test results		Order of integration
	t-statistic	Lag order	t-statistic	Lag order	
PORV	-1.947 (0.601)	0	-5.394 (0.001)	0	I (1)
TPE	-2.065 (0.540)	0	-4.077 (0.019)	0	I (1)
TSE	-2.869 (0.195)	0	-4.889 (0.007)	0	I (1)
PUH	-2.093 (0.519)	0	-5.126 (0.003)	0	I (1)
PRH	-4.108 (0.021)	0	NC	NC	I(0)

Source: Calculated by the Author from E-views 9 statistical package

NB: Figures in parenthesis are the corresponding Mackinnon (1996) one-sided p-values.

The unit root test results in Table 4.1 shows that only private healthcare expenditure (PRH) is stationary at levels as the probability value (0.021) of the t-statistic (-4.108) below 0.05. The other variables in the model become stationary at first difference. Therefore, it is clear from the result that the variables are mixed integrated with PRH being integrated of order one while PORV, TPE, TSE and PUH are integrated of order one.

4.3. Test for Cointegration

Like the unit root test, the cointegration test was carried out at 5 percent level. The result is showed in Table 4.3.

Table 4.3: Cointegration test result

Series: PORV TPE TSE PUH PRH				
Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.990536	132.7772	76.97277	0.0000
At most 1 *	0.832658	58.21343	54.07904	0.0204
At most 2	0.585542	29.60996	35.19275	0.1766
At most 3	0.433981	15.51741	20.26184	0.1982
At most 4	0.330155	6.411354	9.164546	0.1613
Hypothesized		Max-Eigen	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.990536	74.56374	34.80587	0.0000
At most 1 *	0.832658	28.60347	28.58808	0.0498
At most 2	0.585542	14.09255	22.29962	0.4536
At most 3	0.433981	9.106053	15.89210	0.4225
At most 4	0.330155	6.411354	9.164546	0.1613

Source: Calculated by the Author from E-views 9 statistical package

Table 4.3 shows the cointegration tests results for the series in the model. Both the trace and Max-Eigen tests results indicate that two cointegrating equations exist in the model. This is because the calculated trace and Max-Eigen statistics are more than their associated critical values. The implication of this finding is that PORV, TPE, TSE, PUH, and PRE are cointegrated. This evidence of cointegration attests to long-run relationship in the variables and provides the empirical basis for estimating the cointegrating regression model using FM-OLS approach.

4.4 Cointegrating Regression Analysis

The cointegrating regression model was estimated using FM-OLS. The result is reported in Table 4.4.

Table 4.4: Cointegrating regression result

Dependent Variable: PORV					
Method: Fully Modified Least Squares (FMOLS)					
Sample (adjusted): 2000 2016					
Included observations: 17 after adjustments					
Variable	Coefficient	Std. Error	t-Statistic	Prob.	
TPE	-0.697	0.265	-2.632	0.021	
TSE	-0.836	0.166	-5.038	0.000	
PUH	-16.629	7.021	-2.369	0.036	
PRH	-1.990	4.337	-0.459	0.655	
C	187.669	29.859	6.285	0.000	
R-squared	0.578	Mean dependent var		68.371	
Adjusted R-squared	0.437	S.D. dependent var		10.365	
S.E. of regression	7.779	Sum squared resid		726.24	
Long-run variance	26.381				

Source: Calculated by the Author from E-views 9 statistical package

The regression estimates in Table 4.4 show that the coefficients of the regressors are consistent with the hypothesized negative signs. The result shows that primary school enrolments, secondary school enrolments, and public healthcare expenditure are significantly related to poverty level while private healthcare spending does not exert significant influence on poverty level. A percentage increase in primary school enrolment reduces poverty by 0.697 percent while a percentage increase in secondary school enrolment contracts poverty by 0.84 percent. This finding is in accordance with the finding of Pervez (2014) that gross secondary school enrolment has a negative and significant impact on poverty in the long run. The implication of this finding is that access to education provides the opportunity for reducing the population in poverty. Similarly, a percentage increase in public healthcare spending, on the average, reduces poverty by 16.63 percent. This is indicative that public sector spending in the health sector is robust in reducing the level and depth of poverty in Nigeria. The coefficient of determination (0.578) indicates that 58 percent of the aggregate variations in poverty level are due to changes in the explanatory variables in the model.

4.4.1 Diagnostics Tests

The diagnostics tests were carried out at 5 percent level. The results are presented in Table 4.5 and Figure 4.1

Table 4.5: Serial correlation test result

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob*	
. ** .	. ** .	1	0.243	0.243	1.1899	0.275
. * .	. * .	2	-0.077	-0.145	1.3179	0.517
. .	. .	3	-0.022	0.037	1.3291	0.722
. .	. * .	4	-0.060	-0.081	1.4191	0.841
. * .	. * .	5	0.079	0.128	1.5891	0.903
. * .	. ** .	6	-0.182	-0.283	2.5624	0.861
. * .	. .	7	-0.159	0.008	3.3768	0.848
. * .	. * .	8	-0.140	-0.197	4.0796	0.850
. * .	. .	9	-0.111	-0.003	4.5775	0.869
. .	. * .	10	-0.038	-0.128	4.6432	0.914
. .	. .	11	-0.055	0.025	4.8049	0.940
. .	. .	12	0.038	-0.039	4.8985	0.961

Source: Calculated by the Author from E-views 9 statistical package

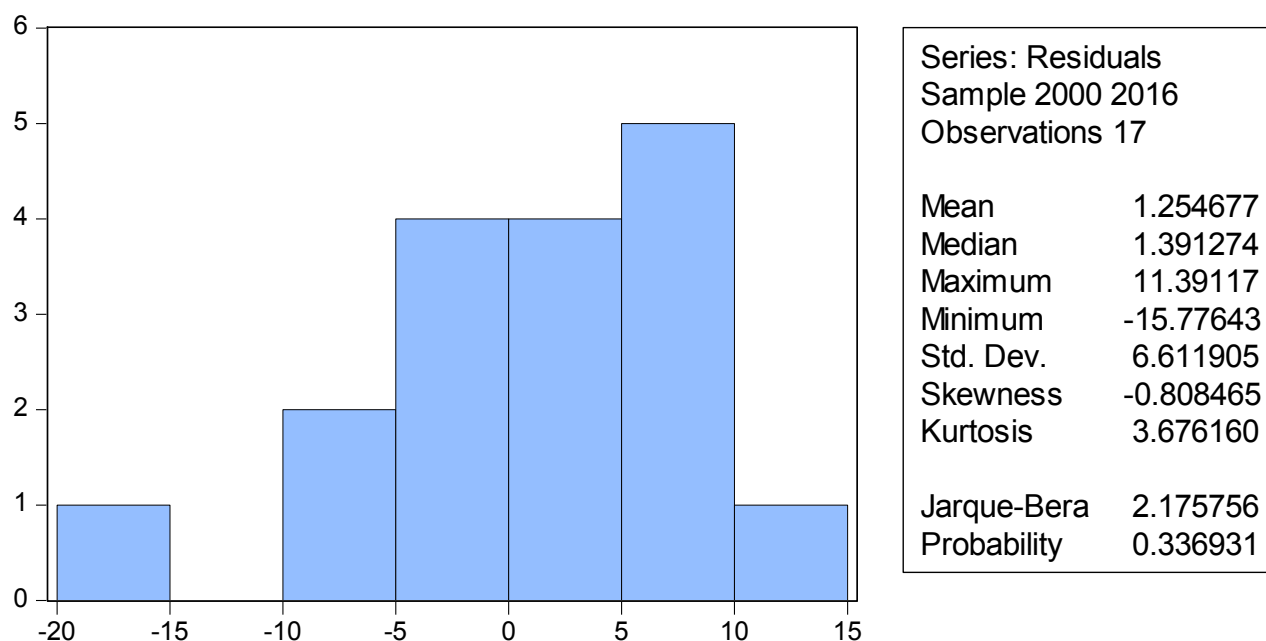


Figure 4.1: Normality test result

The serial correlation test result in Table 4.5 shows that residuals are uncorrelated at 0.05 levels of significance. This is because the associated probability values of the Q-statistics are greater than 0.05. This suggests that the model is free from autocorrelation. Again, it was found that the residuals are normally distributed as the probability value (0.337) of the Jarque-Bera statistic (2.175) exceeds 0.05.

4.5 Granger Causality/Block Exogeneity Wald Tests

The causal relationship between human capital development and poverty level were estimated using Granger test for causality. The significance was 5 percent, and the results are reported in Table 4.6.

Table 4.6: Causality test result.

Sample: 1990 2016			
Included observations: 17			
Dependent variable: PORV			
Excluded	Chi-sq	df	Prob.
TPE	3.517370	1	0.0607
TSE	8.576796	1	0.0034
PUH	3.406547	1	0.0649
PRH	22.89361	1	0.0000
All	44.44158	4	0.0000

Source: Calculated by the Author from E-views 9 statistical package

NB: df denotes the degree of freedom.

The causality test results in Table 4.6 indicate that a unidirectional causality runs from gross secondary school enrolment and private healthcare expenditure to the poverty level. This is because the respective probability values (0.003 and 0.000) of their chi-square statistics (8.58 and 22.89) are greater than 0.05. The results also show that joint causality runs from the explanatory variables to the poverty level. This is based on the fact that the probability value (0.000) of chi-statistic (44.44) is more than 0.05. This finding suggests that the human capital is an actual fact important in predicting changes in the poverty level.

5. Conclusion and Recommendations

5.1 Conclusion

For developing countries, low and middle income alike, developing human capital is adjudged as key for reducing poverty. In view of this, critical efforts were made in this study to determine the relationship between human capital development and poverty reduction in Nigeria. The FM-OLS and Granger causality test formed for the data analysis. The results showed that school enrolments comprising gross primary and secondary enrolments are significant in reducing the level of poverty in Nigeria. It was also found that public healthcare spending contributes significantly to poverty reduction the period covered. The Granger causality test shows that the explanatory variables collective have very high predictive powers for poverty level. Given the findings, it is concluded that building human capital is a fundamental and an effective strategy for reducing poverty level.

5.2 Recommendations

Given the findings associated with this finding, the following policy recommendations are provided:

1. Policy makers should ensure that poverty reduction strategy in Nigeria provides for increased access to education through gross primary and secondary school enrolments.
2. Public healthcare expenditure should be prioritized in the fiscal policy framework with a view to developing the stock of human capital through improved health status.
3. Pro-poor and equitable income distribution should be promoted to boost gross private healthcare spending in order to improve the health status and reduce the level and intensity of poverty.

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The Joint Effect of Competitive Strategies, Business Environment and Corporate Image on Performance of Large Manufacturing Firms in Kenya

Ndung'u Consolata¹, Ogutu Martin², Yabs John³, Njihia James Muranga⁴

¹ Dedan Kimathi University of Technology, P. O. Box 657, 10100, Nyeri, Kenya, consolatathuranira@gmail.com, Tel. No: +254 717281549

² School of Business, University of Nairobi, P.O. Box 30197, 00100 Nairobi

³ School of Business, University of Nairobi, P.O. Box 30197, 00100 Nairobi

⁴ School of Business, University of Nairobi, P.O. Box 30197, 00100 Nairobi

Abstract

The main objective of the study was to determine the joint effect of competitive strategies, business environment and corporate image on the performance of large manufacturing firms in Kenya. This study was guided by positivist philosophy and adopted a descriptive cross-sectional survey on the population of 139 large Manufacturing firms. By using a questionnaire data was collected. 75 questionnaires were returned, and only 72 could be used. Percentages, mean scores and standard deviations were some of the descriptive statistics used to describe the findings. Correlation and regression analysis were used to test the hypothesis. The results of the joint effect of competitive strategies, business environment and corporate image on the performance of large manufacturing firms in Kenya were statistically significant. The regression coefficient statically revealed that competitive strategies, business environment, and corporate image influenced the performance of large manufacturing firms in Kenya. The combined influence of the three variables (competitive strategies, business environment, and corporate image) was greater than the predictor influence of variables on the performance of large manufacturing firms in Kenya. The study concluded that the large firms stand a better position of achieving good performance if they pay attention to all predictors than when they focus on all variables.

Introduction

Competition is the order of today business environment. Firms in developing countries are exposed to intense competition due to globalization. Firms irrespective of their size have to deal with the declining market share, and therefore competitive strategies are critical to all firms. All firm managers endeavor for better performance than yesterday, which is very challenging due to the dynamic environment. This intensity in competition has driven firms to remain relevant by continuously adapting and renewing and recreating organizational capabilities due to competition. This dynamism in the environment entails firms to constantly monitor the environment they operate in with a view to crafting competitive strategies

to make them unique from competitors in the eyes of their customers and various publics. Various stakeholders perceive the organization using different perspectives. It's the work of the firm managers to continuously understand the various stakeholders' perspective because each is concerned primarily with a different facet of its operations. Maintaining a positive corporate image is vital for a sustainable competitive advantage and eventually firm performance. Just as firms compete for customers so, do they compete for a good reputation.

In Kenya, large manufacturing firms occupy a very important place due to their contribution to the economy in terms of the number of people they employ and contribution to the GDP. The implementation of competitive strategies by respective firm managers ensures that firms achieve a competitive advantage and finally achieving organizational performance. Various authors have defined competitive strategies: Johnson and Scholes (2005) to the scope and direction of an organization for a long period. Thompson & Strickland (2005) refers competitive strategies as approaches and moves a firm has to attract new customers and withstand competition so that a firm can gain a competitive advantage. According to Porter (2008) strategy is building defenses against competition where forces are weak. From this definition, strategies aim at differentiating firm from competitors in various forms in order to have a sustainable competitive advantage in the long run.

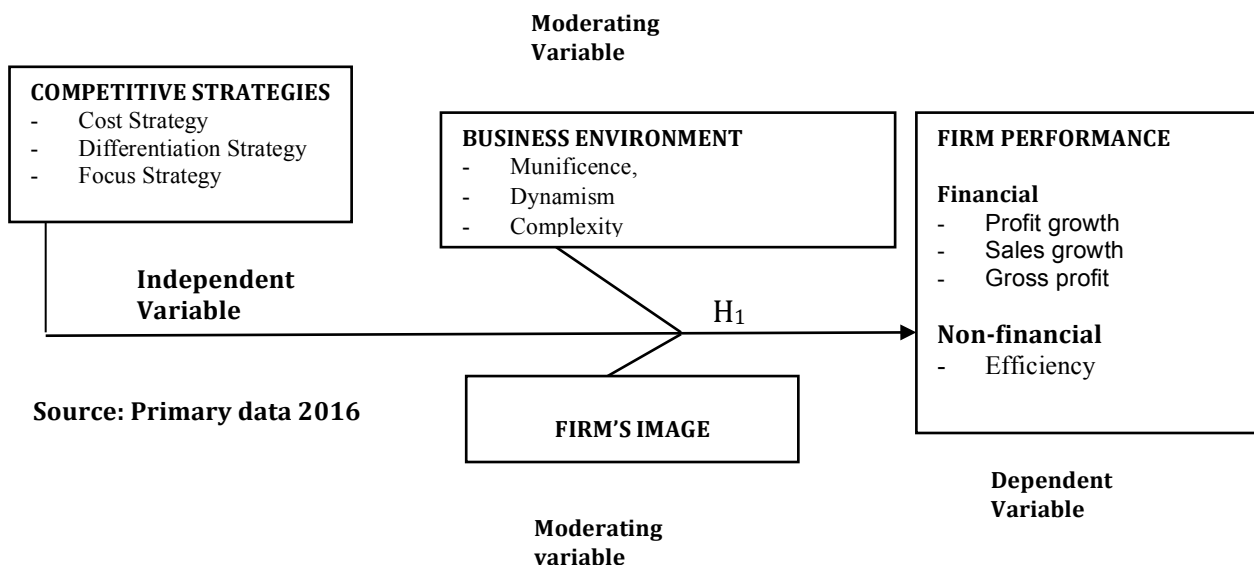
Literature review

Competitive Strategies, Business Environment, Corporate Image and Organizational Performance

Competitive strategies entail the firm's responses toward the external environment which include competitors and customers (Hitt, Ireland & Hoskisson, 2015). Different evidences and impacts have been reported on the influence of external environment on firm performance according to Venkatraman & Prescott (1990). Performance of firms is an inter-relationship amongst different factors and, neither the environment nor strategy or structure alone can sufficiently explain the difference in performances. Panel et al. (2011) while studying SMEs from China, Turkey and USA found out that the combination strategy-performance linkage was supported in Turkey and USA. The results of the study showed that in China, the highest performing strategic group emphasized focus orientation accompanied by neither cost leadership nor differentiation, however, and the lowest performing group comprised of low-cost businesses. The classification of SME used was for the European Union and the Association of Turkish Trade Chambers. According to Leitner and Goldenberg (2010), the use of modern technologies and management practices, for example, total quality management and flexible production technologies allow organizations to reduce costs and differentiate products simultaneously. Environmental dynamism was found to moderate the strategic decision-making process and firm performance (Rasheed and Kotulic, 1995).

Ibrahim and Primiana (2015) while basing his finding on a literature review and a framework that has been developed concluded that business environment has an effect on organizational performance. A study by Al-Khouri (2010) acknowledges that stakeholder ratings both externally and internally are key to the performance of firms'. Similar findings by Chang and Fong (2010) concluded that corporate image is important to the performance of firms. This is because customers will always buy from firms they rate highly, and they also refer to others for similar products and services. Different stakeholders rate a firm from different perspectives depending on their interest. So managers need to understand the various interests of their stakeholders in order to manage their corporate image effectively. A good corporate image is one of the firm's capabilities that enable firms to achieve a competitive advantage over their competitors.

Conceptual Model



Research Methodology

The study adopted the positivistic philosophy. The study sought to fill the gaps through the use of hypothesis then deduced from the observations, and that is why this philosophy was appropriate. This study involved collection of data and making comparisons with theories that guided the study. It was a descriptive cross-sectional survey. Cross-sectional survey according to Bryman and Bell (2007) examine relationships between variables, and there is no time order to the variables. The population of the study was 655 large manufacturing firms registered by Kenya Association of Manufacturers which has 13 key industrial sectors. Most firms were located in Nairobi and the surroundings. Stratification sampling technique was adopted to divide the manufacturing 13 sub-sectors forming a stratum. This was to get a representation of all items under study. Saunders et al. (2007) assert that this method gives a better comparison hence reducing standard error and also provide some control over variance. To determine the sample size the researcher used simple random sampling technique which allowed for equal representation of all firms in the target population and was important in reducing biases. The target respondent was the chief executive officer or with his or her permission, managers in marketing, corporate, the human resource which depended on the structure of the organization and availability to participate in the survey. Questionnaires were sent out to 139 large manufacturing firms. The questionnaire had been piloted to five large manufacturing firms to allow modification. A total of 75 questionnaires returned, but only 72 could be used after checking for their completeness. The descriptive and inferential analysis was conducted which involved the use of frequencies in their absolute and relative forms (percentages). Mean and standard deviations were also used as a measure of central tendencies and dispersion. By use of inferential statistics hypothesis were evaluated. Multiple regression models were used to evaluate the influence of the combination of variables including the interactions on performance and to test the nature and magnitude of the relationships between the variables in the study.

Analysis of Descriptive Data and Results

A total of 72 questionnaires were used. This represented 52 % of the large manufacturing firms sampled. According to Nachmias and Nachmias (2004) acknowledged that during survey research rarely do they surpass a response rate of 50% which they considered satisfactory. Most of the respondents were locally owned firms which constituted 44.4%. Those that were both locally and by foreign-owned constituted 38.9% while those owned purely foreign-owned totaled to 16.7%. This was a good indicator that Kenyan government embraced foreign investment which is in line with Kenya vision (2030), which is making the sector more vibrant. The respondents had worked for at least seven years representing 18.1% while

6.95% had worked for 12 years. This was a good indication that the respondents understood strategy development and implementation. The study adopted a cut of 0.5 and above as the rule. According to Moktar, Yussuff & Archad (2009) scores above 0.5 are valid for further analysis. All variables had alphas of 0.5, and above hence they were considered reliable. Multi-collinearity test was also undertaken to test if the residuals collated. The test indicated that all VIF values were within acceptable levels which were between 1 and 2. According to the field (2000), all VIF should be within 1 and 2. Construct validity to test how well the measure reflects the target construct was tested through factor analysis. All conditions of validity were met.

Findings for the tests for the Hypothesis and discussion

The objective of the study was to determine the effect of competitive strategies, business environment, corporate image, and performance was more than individual effects. The following hypothesis was formulated and tested:

H₁: The joint effect of competitive strategies, business environment, and corporate image is greater than the individual predictors on organizational performance of large manufacturing firms in Kenya.

To test this hypothesis, multiple regression analysis was conducted. A summary of regression results for joint influence analysis of competitive strategies, business environment, and corporate image on organizational performance are presented in Table, 2 and 3.

Table 1: Summary of regression results for Joint influence Analysis of Competitive Strategies, Business Environment, and Corporate Image on Organizational Performance of Large Manufacturing Firms in Kenya

R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
			R Square Change	F Change	df1	df2	Sig. F Change	
.408	.400	5.38855	.408	48.242	1	70	.000	
.436	.419	5.29980	.028	3.364	1	69	.071	

Table 2: ANOVA for the joint influence of Competitive Strategies, Business Environment, Corporate Image on Performance

Sum of Squares	df	Mean Square	F	Sig.
1400.778	1	1400.778	48.242	.000 ^b
2032.555	70	29.037		
3433.333	71			
1495.271	2	747.636	26.618	.000 ^c
1938.062	69	28.088		
3433.333	71			
2050.096	3	683.365	33.594	.000 ^d
1383.238	68	20.342		
3433.333	71			
.597	.579	4.51018	.162	27.275
			1	68
				.000
				1.882

Table 3: Coefficients for Competitive Strategies, Business Environment, Corporate Image on Performance

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	-.070	5.498		-.013	.990		
Competitive_strategies	.643	.093	.639	6.946	.000	1.000	1.000
2 (Constant)	-10.162	7.715		-	.192		
Competitive_strategies	.571	.099	.567	5.746	.000	.841	1.189
corporate_image	.661	.360	.181	1.834	.071	.841	1.189
3 (Constant)	-20.289	6.846		-	.004		
Competitive_strategies	.503	.086	.499	5.882	.000	.822	1.217
corporate_image	.223	.318	.061	.701	.486	.783	1.278
Business_Environment	.421	.081	.432	5.223	.000	.865	1.157

Source: Primary data (2016)

The regression coefficients of the joint effect of competitive strategies, business environment and corporate image on performance are presented in Tables 3. The beta coefficients illustrate that competitive strategies ($\beta = 0.499$), (p-value=0.000) is significant, corporate image ($\beta = 0.061$), (p-value=0.486), not statistically significant and business environment ($\beta = 0.432$), (p-value=0.000) is significant. When all variables have been put together their relationship is significant, and hence, the hypothesis is supported. The regression model used to predict performance arising from the joint effect of competitive strategies, business environment, and corporate image on performance was fitted as follows:

$O.P = -.20.289 + 0.499C.S + 0.061C.I + 0.432B.E + (6.846) \text{ Error Term}$. Where:

O.P = organizational performance

C.S = composite index of competitive strategy

C.I = composite index of the corporate image

B.E = composite index of the business environment.

Therefore any unit change of competitive strategies, corporate image, and business environment influences a change in firm performance by 0.499, 0.061 and 0.432 respectively.

Discussion of Results

The study had one broad objective to determine the joint influence of competitive strategies, business environment and corporate image on the performance of large manufacturing firms in Kenya. There was an assumption that competitive strategies, business environment, and corporate image had an influence on performance of large manufacturing firms in Kenya A corresponding hypothesis **H₁**: The joint effect of competitive strategies, business environment, and corporate image is greater than the individual predictors on organizational performance of large manufacturing firms in Kenya was formulated and tested. The regression coefficient revealed that the results were statistically significant which were sufficient to support the influence of the joint effect of variables on the performance of large manufacturing firms in Kenya.

These findings were consistent with findings by Aosa (2011) who adduced that firms in Kenya indeed adopted a strategy and the strategy had an impact on the performance of those firms. Similarly, Arasa and

K'Obonyo (2012) asserted that strategy was related to firm performance. This, however, was in contradiction by Machuki and K'Obonyo (2011) who found out that corporate strategy was not statistically significant to firm performance. This, therefore, requires that the manager of these large manufacturing firms understand the challenges that the organizations face so that they craft strategies appropriate for their firms and industry and also situation they may find themselves into. This will help the firms to stay ahead of competitors who don't have a strategy.

Summary, Conclusion, and Recommendations

The results of the joint effect of competitive strategies, business environment and corporate image on performance were statistically significant implying that the variables jointly influence organizational performance. This supports the findings of Barnes (1996) that competitive strategies influence firm performance. This interdependence of the variables is very crucial, and consequently, some assessment of their impact should be assessed and considered. The results were sufficient to support the influence of joint variables on the performance of large manufacturing firms in Kenya.

Limitations of the Study

The researcher was not able to develop a unified way of selection of competitive strategies process. Each of these strategies depends on the ability to choose the strategy that fits the organization. The sample was only drawn from KAM registered organizations operating in Kenya. Therefore generalization of the findings requires additional studies to be conducted elsewhere in other sectors. Other sizes of firms can also be considered as well as in other economies to see whether they yield to similar results.

Suggestions for Further Research

Future studies can introduce other variables either intervening or mediating the relationship. Future studies could consider other dimensions of variables that were not considered or consider the variables in other conditions of the environment. The study variables can be extended to other sectors.

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Working Capital, Financial Constraints, and Firm Value: Evidence of Indonesia Manufacturing Firm

Ester Gracia¹

¹ Graduate, Universitas Indonesia

Abstract

This study examines the effect of working capital management and financial constraints (which proxied by size, cash flow, leverage, and Z-score) to the firm value in manufacturing listed on the Indonesia Stock Exchange during the period of 2012-2016. The research uses multiple regression data panel with fixed effect model of 110 firms. Data processing is statistical software Eviews 9. The results show that working capital and financial constraints affect the firm value.

Key Words: Working Capital, Financial Constraints, Firm Value

1. Introduction

In theory, maximizing shareholder wealth by the company is clearly explained, but in real life sometimes it is complicated. The shareholder wealth is related to the value of the company. The latter, the value of a company can be viewed both as a long-term value of the company. The difficulty of corporate management in the decision-making process arises when this linkage does not exist, that is when shareholder wealth is only considered in terms of financial performance generated in the short term. The value of the firm is based on some of the same basic concepts that are reflected in the financial statements (Johnson, 1999).

Each industry has different working capital characteristics. In practice, the manufacturing sector has a more complex working capital component than others, because the manufacturing industry sector has the process of producing raw materials into intermediate goods to finished goods that require payment several months before the goods sold to customers or so-called accrual payment.

Working capital management related to cash flow is one of the challenges for manufacturing companies. In general, working capital describes the current situation, while cash flow is a measure of a company's ability to generate cash over a given period of time. In accounting, the calculation of working capital is expressed as net working capital which equals to current assets minus current liabilities. If net working capital is negative (debt is greater than the asset), it will affect short-term cash flow. According to Pimplapure and Pushparaj (2011), if the company has negative working capital, there will be liquidity problems that cause disruption of the company's operations so that the income becomes decreased. As a result, the value of the company will also decrease.

However, the optimal level of working capital depends heavily on the company's financial condition. This financial condition described by financial constraints. The optimal level of working capital with financial constraints is lower than the optimal level of working capital with no financial constraint (Banos et al, 2014). Financial constraints are a condition where companies have limited money-making ability, which may cause companies to reduce their investment in working capital by collecting receivables, tightening credit terms, liquidating existing inventories, and easing credit requirement supplied (Hill et al, 2010). Molina and Preve (2009) conducted a study showing the result that companies experiencing financial constraints have significantly reduced the rate of trade credit compared to growing companies. Thus, overall working capital is inversely correlated with financial constraints. Typically, investors tend to avoid companies that have a high financial constraint. According to Douglas (1997), a company has financial constraints when the company has significant problems in repaying debt. The variables used to prohibit the existence of financial constraints of a company according to Banos et al (2014) are size, cash flow, leverage, and Z-Score.

2. Method

The population of this study is manufacturing companies listed on the Indonesia Stock Exchange in the period of 2012-2016. The selection of sample based on purposive sampling technique in accordance with predetermined criteria. Based on the dimension of time and time sequence, this research is called panel data.

Below are the hypothesis of the research:

- H1 : Networking capital positively affects the firm value.
- H2: Size has a positive effect on the firm value.
- H3: Cash flow has a positive effect on the firm value.
- H4: Leverage has a negative effect on the firm value.
- H5: Z-Score positively affects the value of the company.

This study uses the dependent variable of firm value, which is influenced by independent variables such as net working capital, size, cash flow, leverage, and Z-Score. The table below shows the details of the variables along with how they are calculated.

Tabel 1 The Definition of Variables

Variable	Acronym	Measurement	Reference
<i>Firm Value</i>	VALUE	<i>Tobin's q = (Total assets – Book value equity + Market value equity) / Total assets</i>	(Cetorelli and Peristiani, 2015)
<i>Net Working Capital</i>	NWC	<i>(Accounts receivables + inventories – accounts payable) / Sales</i>	(Afrifa, 2016)
<i>Size</i>	SIZE	<i>Ln (Total Assets)</i>	(Baños Caballero, García Teruel, & Martínez Solano, 2014)
<i>Cash Flow</i>	CF	<i>(Net profit + Depreciation and amortization) / Total assets</i>	(Chauhan and Banerjee, 2017)
<i>Leverage</i>	LEV	<i>Total debt / Total assets</i>	(Yang et al, 2012)
<i>Z-Score</i>	ZSCORE	<i>Z = (ROA + Equity / Asset) / σ ROA</i>	(Li, Tripe, & Malone, 2016)

Furthermore, the empirical research model used is the regression equation formulated as follows:

$$VALUE_{it} = \alpha_0 + \beta_1 NWC_{it-1} + \beta_2 SIZE_{it-1} + \beta_3 CF_{it-1} + \beta_4 LEV_{it-1} + \beta_5 ZSCORE_{it-1} + e_{it}$$

3. Results

The following table summarizes the descriptive statistic after being treated with 'winsorize' using STATA on the research variables in which the variables are firm value (VALUE), working capital (NWC), firm size (SIZE), cash flow (CF), leverage (LEV), and bankruptcy prediction (ZSCORE).

Tabel 2 Statistic Descriptive

	WIN_VALUE	WIN_NWC	WIN_SIZE	WIN_CF	WIN_LEV	WIN_ZSCORE
Mean	1.525456	0.270611	27.96142	0.100379	0.494416	2.788926
Median	1.153600	0.238700	27.83385	0.081350	0.505950	2.732600
Maximum	3.400700	0.529700	30.41900	0.267800	0.781200	4.529000
Minimum	0.724300	0.084500	26.04080	-0.010600	0.211900	1.116500
Std. Dev.	0.870117	0.144478	1.365853	0.083815	0.184527	1.124927
Skewness	1.149654	0.482033	0.418153	0.694002	-0.053356	0.086044
Kurtosis	2.991352	1.998909	2.158091	2.516253	1.794383	1.741821
Jarque-Bera	121.1580	44.26597	32.27169	49.51303	33.57063	36.95606
Probability	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	839.0006	148.8361	15378.78	55.20830	271.9288	1533.909
Sum Sq. Dev.	415.6497	11.45981	1024.189	3.856719	18.69352	694.7377
Observations	550	550	550	550	550	550

The following table is the result of fixed effect regression using Eviews 9.

Tabel 3 The Regression Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
WIN_NWC	0.05862	0.01883	3.11366	0.00200
WIN_SIZE	-0.17152	0.01771	-9.68275	0.00000
WIN_CF	0.52000	0.13534	3.84214	0.00010
WIN_LEV	0.54336	0.07104	7.64814	0.00000
WIN_ZSCORE	-0.02064	0.00444	-4.65332	0.00000
C	6.04219	0.46290	13.05299	0.00000

4. Discussion

4.1 Impact of working capital on firm value

Based on Table 3, it is known that the value of β_1 for a working capital variable is 0.05862 and p-value value is 0.00200. The value of p-value is less than the significance level $\alpha = 0.05$, then the NWC variable gives a significant influence on firm value. Thus, do not reject the hypothesis 1.

Based on the result of estimation of the working capital variable have a significant positive effect on firm value proclaimed through Tobin's Q. The result obtained from this research support result of research conducted by (Wasiuzzaman, 2015) found that working capital has a positive effect significantly on firm value using debt constrained firms). It can be interpreted that the more funds used in working capital can increase the profitability. That is, the funds are used to buy inventory, then the inventory is sold to consumers. Moreover, the convenience of credit policy can increase sales volume. Furthermore, the proceeds of sales or invoices on receivables to customers are reused to purchase raw materials. This working capital turnover demonstrates the efficiency of a company that will ultimately boost corporate profits and provides a positive signal to investors that the company can manage its short-term finance effectively (Cumbie & John, 2017). Positive working capital means a surplus of current assets. Companies can use it to invest. The positive working capital also means that the company can minimize the inventory, collect receivables quickly and remove expensive short-term financing. This can maximize the corporate value (Hampton, J.J & Wagner, 1989). The company is considered

to have good growth prospects in the future. In addition, the creditors will also assess that the company is trusted to maintain the continuity of the company's operations with loan funds from creditors.

In the other hand, this research contrasts with the previous study that showed that the relationship between working capital and firm value is not that significant (Kieschnick, R., LaPlante, M. Moussawi, 2008). The negative relationship indicates a reduction in investment of working capital, which means that corporate profitability is high so that the value of the company becomes high also.

4.2 *Impact of financial constraints on the firm value*

Based on Table 3 it is known that β_2 of SIZE is -0.17152 with the p-value of 0.0000. Thus value is less than $\alpha = 0,05$ then the SIZE variable gives significant negative effect on company value. Testing hypothesis 2 rejected that there is a positive influence on company size (SIZE) and company value. Based on the estimation result of company size variable has the significant negative influence on company value. This result conflicts with research conducted by Riandini (2014) who found that firm size has a positive and significant impact on firm value. In this study, this influence is indicated by the coefficient of company size path to the value of a positive company which means a linear relationship between firm size and firm value. The value of the firm will increase in line with the increasing number of assets owned by the company. This is because before beginning to invest, investors also consider the total assets as an indicator of the size of the company in which the size of a large company is considered to have a good performance.

The negative relationship between company size and firm value indicates that large risk of assets will lead to idle assets or idle assets if management does not manage them properly. Hence, a large firm size, in this study represented by the total assets, if not managed or invested properly would be a financial constraint that could ultimately lower the value of the firm.

Based on Table 3, it is known that the value of β_3 of CF is 0.52000 with p-value is 0.00010. The value of p-value is greater than $\alpha = 0.05$ which means CF gives significant positive effect on firm value. Thus, the hypothesis 3 is not rejected. The result of the test shows that cash flow has a positive but not significant effect.

The results of this study contrast with research conducted Supriyanti (2015) found that cash flow does not affect the value of the company. But the results of this study in accordance with research conducted by Vogt and Vu (2000) which states that companies with high free cash flow rate will have a higher corporate value of the return and performance of companies than companies that have a low free cash flow. Cash flow reflects available cash and is not used for working capital or investment in fixed assets. The results of this study indicate that the greater the cash flow owned by the company, the value of the company is also greater.

Cash flows are used to assess the quality of company management decisions over a period of time and their impact on operating outcomes. Cash flow is also one important factor for investors to make decisions, because a company's cash flow shows how effective and efficient the company is in generating cash and spending the cash. In the company taken as the sample of this study, high cash flow causes the company to experience low financial constraints so that the firm value increases. It is because the company does not face many obstacles in its activities to maximize the production performance by using the available cash.

Based on Table 3, the LEV coefficient or the value of $\beta_4 = 0,54336$ and p-value 0,0000. The p-value value less than $\alpha = 0.05$ means that leverage has a positive effect on firm value. Thus, hypothesis 4 is rejected. The results prove that the level of debt has a significant positive effect on the value of the company. This is contrary to research conducted by Riandini (2010) which states that leverage has a negative and significant influence on the company. The results of this study represent that the higher the debt level of a company, the higher the value of the company. The companies that have many debts, may have the opportunity to utilize the funds for their operations and increase the value of the company due to the reduced financial constraints to fund the operations.

The use of debt can have a positive impact on the value of the company due to tax factors such as tax shield. In the tax shield, the number of corporate tax bills can be reduced due to the amount of burden that also increases the depreciation expense and interest expense. Due to these tax factors, the company will enjoy tax deductibles so that increasing debt will boost the company's value (Modigliani and Miller, 1961).

From the perspective of investors themselves can see this from two different sides of the company with high debt levels reflect that the company has the opportunity to expand or diversify that will create growth. On the other hand, high levels of debt are also indicated that the company also has high business risks such as the inability of firms to pay interest on loans, insufficient funds to pay off maturing debt and bankruptcy risk in which markets and investors will respond negatively to the issue. Therefore, in order to prevent this risk, the management needs to set a competitive strategy so that the high debt can be utilized to maximize the sales profit.

The results of this study show that the higher the level of debt, the lower the financial constraints, and the value of the firm increases. That is, debt at a certain level can be utilized by the company in managing its production activities because it has sufficient funds. It also means that the company does not have many obstacles in its financial management.

Based on Table 3, the Z-Score coefficient or the value of β_5 is -0.02064 and the p-value is 0.00230. The p-value value is less than $\alpha = 0.05$ which means that Z-Score gives a significant negative effect on firm value. Then the Hypothesis 5 is rejected.

The results of this study are not in line with research conducted by Dahlan (2014) who found that the financial constraint which is proxied with Z-Score does not give a significant effect on the value of the company. In the study, it was shown that there is no difference in firm value between companies experiencing financial constraints in the period before, during and after the global financial crisis in 2008. This can happen because most investors may not use Z-Score as a basis for decision making in the capital market. In general, the Z-Score model for predicting bankruptcy is used by banking companies that provide loan funds.

Nam and An's (2017) study found that the risk of bankruptcy showed by K-Score had a significant positive effect on firm value, where K-Score was a modified model developed by Altman. The results of this study say that the Altman K-Score is the right proxy for predicting bankruptcy in companies in Korea. The importance of the results of this study is that companies can maintain financial health by reducing the risk of bankruptcy (default risk) to maintain the sustainability of the company, because the risk of bankruptcy can reduce the firm value.

The results of this study conclude that a high Z-Score (the lower the risk of bankruptcy) can reduce the value of the firm. This is contrary to the general assumption that the smaller the chances of a company's bankruptcy mean fewer financial constraints facing the company and assumed to increase the firm value.

Based on the analysis above, it can be concluded that financial constraints have an influence on the firm value. Of the four proxies of financial constraints, leverage variables show considerable influence on changes in corporate value. This is indicated by the largest leverage variable coefficient among the other three proxies. In other words, the level of debt or leverage is a determinant that contributes significantly to financial constraints.

Based on the analysis and discussion of research in the previous part, we can conclude that the working capital has a positively affects the value of 110 manufacturing companies in Indonesia Stock Exchange. Good working capital management will impact sales that increase profits. The company's profit has risen to a positive signal for investors as it is assessed to have growth prospects in the future. In addition, an increase of working capital will also increase creditor confidence in lent funds.

The financial constraints affect the value of 110 manufacturing companies in the Indonesia Stock Exchange. Of the four components of financial constraints (size, cash flow, leverage, and Z-Score), leverage variables have the greatest contribution to changes in corporate value.

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Corporate Investment in Developing Countries and State's Responsibility in Sustainable Management of Natural Resources

Eni E. Alobo¹, Adoga J. Adams², Kevin U. Udungeri³

¹ Faculty of Law, University of Calabar - Nigeria Visiting Scholar, Faculty of Law, University of Port Harcourt, Nigeria

² Faculty of Law, University of Calabar

³ Faculty of Law, University of Calabar, Nigeria, P.M.B. 1115, Calabar. Tel: +234-(0)803-682-2222. Email: aloboenie@yahoo.com

Abstract

Environmental squalor has continued to create hostile challenges for health and economic development in Nigeria. Some of these glitches include deforestation, pollution, global warming, etc. Despite environmental laws and policies targeted at eradicating these problems, the situation in Nigeria seems deteriorating due to the fact that these laws are not meritoriously enforced. In this article, we have critically evaluated some of the notable laws and regulations governing the oil and gas sector designed to protect the environment against harmful activities. The consequence that flowed from this evaluation is the realisation that despite the efforts of the government in establishing laws and regulations to protect the environment, there have been very little positive results in the area of effective implementation and enforcement of these laws. This we discovered was attributable to the lack of political will on the part of the government and the serious challenge of regulating Multi-National Corporations due to their economic strength and their transnational nature. Again, our appraisal clearly established that although there are laws regulating the oil industry of Nigeria, some of these laws are very old and of no consequence, while others do not have direct control over corporate operations and Multi-National Corporations. This has created regulation and implementation gap and the attendant negative consequences on the Nigerian environment. In this connection, we have elicited and recommended practical solutions to these problems to enable government to strikes the delicate balance between the need to encourage corporate investment and the necessity to protect the environment from the resulting hazards.

Keywords: Corporate Investment, Environmental Laws, Multi-National Corporations, Natural Resources

1. Introduction

The end of the Second World War saw the colonial powers losing grip of their former colonies with the emergence of independent States (Nico, 1997). The post-colonial States began agitating for autonomy over the management of their natural resources to foster socio-economic development of their territories (Orla and Pereira 2013). This agitation gained prominence at the international plane and culminated in a series of United Nations General Assembly (UNGA) resolutions on sovereign rights of the people over their natural resources. For instance, UNGA Res 626(VII) (December 21, 1952) entitled Right to Exploit Natural Wealth and Resources; UNGA Res 1515 (XV), (15 December 1960) recommending respect for the sovereignty of every State to dispose

of its wealth and natural resources; UNGA Res 1803 (XVII), (December 1962) declaration on 'Permanent Sovereignty over Natural Resources'.

Emphasis on the rights of States to control their natural resources was further incorporated into the two Human Rights Conventions of 1966; Common Article 1(2) of the International Covenant on Civil and Political Rights and International Covenant on Economic, Social and Cultural Rights; the 1978 Vienna Convention on the Succession of States, Article 13 and regional instrument of the African Charter on Human and Peoples' Right (adopted 27 June 1981, entered into force 21 October 1986) (1982), Article 21.

These instruments became the legal basis upon which developing States with rich natural resources began to renegotiate investments and concession agreements with foreign investors who hitherto had direct and unregulated access to the economic sectors of these States.

National economic policies of some developing States were tailored towards indigenous control through nationalisation of foreign assets and corporate investments. An eloquent example was the nationalisation of the Anglo-Iranian Oil Company by Iran in 1951. The policy of expropriating and transferring of foreign investments to indigenous people led to tension between developing countries and the foreign investors whose investments were expropriated without adequate compensation (Fiona, 1991). The tension and harsh confrontations between investors and host States resulted in the United Nations General Assembly Resolution 2158 of 1966, to serve as operational guidelines for corporate investment by streamlining the rights of the host States to their natural resources and the rights of foreign investors to secure their investments in line with the national laws of the host States. This became necessary as most developing States lacked the huge capital and technology required to exploit their natural resources for economic development optimally. It was a demonstration of effort by the UN to promote the economic development of post-colonial States, through mutual cooperation, transfer of technology and manpower development of the host States.

2. Corporate Investment and States Obligations in Environmental Protection

Efforts at ensuring corporate investment and smooth corporate relations between the host States and foreign investors led to the signing of various multilateral treaties which led to the establishment of international trade bodies like the World Trade Organisation (WTO) and bilateral investments treaties (BITs) (Menno and Saman). Further effort to strengthen corporate investment with the clearly defined responsibility of the host States and the investors necessitated the United Nations General Assembly adopting and passing the Charter of the Economic Rights and Duties of States in 1974 through GA A/Res/29/3281 (XXIX) (12 December 1974).

This resolution was as a result of the UN Conference on Trade and Development of 18th May 1972, which stressed the need to establish generally accepted norms to govern international economic relations between States. These efforts facilitated the development of transboundary trade and ushered in global trade with increasing role of private investors in the exploitation of natural resources (Jona, 2004). MNCs began investing huge capitals in most resource-rich States and gradually began to dominate the economies of developing States (Elena and Jonah, 2011).

The quest for rapid economic growth by developing States coupled with the desire of MNCs to make profit and returns on their investments resulted in over-exploitation of the natural resources leading to environmental pollution and destruction of ecosystems (Rhuks, 2009). The need to minimise the adverse effect of the exploitation of trans-boundary resources and to protect the common environment led to series of international instruments and agreements creating obligations and commitments on States to ensure sustainability in the use of the natural resources. This initiative was predicated on the global nature and transboundary effects of environmental pollution, like the issue of climate change which could possibly affect both the developing and developed nations.

Notable efforts in addressing environmental issues at the international level began with the theoretical framework laid by the 1972 Stockholm Declaration, which was propelled by the need to protect and preserve the human environment through the sustainable use of natural resources. The Stockholm conference established framework principles on environmental rights and sustainability and made some recommendations which birthed the United Nations Environment Programme (UNEP), as an agency of the United Nations that sets global environmental agenda promotes sustainable development programmes and devise means of implementing environmental policies (John and Deborah, 2012). Further development culminated in the Brundtland Report of 1987, which addressed critical issues affecting the human environment and the depletion of natural resources.

The necessity to integrate environmental considerations as an essential component of economic development gained more prominence at the United Nations Conference on Economic Development which later expanded to include the management of the atmosphere through the instrumentality of the United Nations Framework Convention on Climate Change (UNFCCC), and later created obligations and commitments by the Kyoto Protocol. A more practical effort at establishing procedural environmental rights with the binding obligation on States is the United Nations Economic Commission for Europe (UNECE) Convention on Access to Information, Public Participation in Decision Making and Access to Justice on Environmental Matters.

In recent times, the issue of sustainable management of natural resources has been on the front burner of major world summits, with the establishment of international law instruments, norms, and principles creating binding obligations on States. For instance, the 2002 World Summit on Sustainable Development (WSSD) and the 2012 Earth Summit. One of the foremost international law principles on the sustainable management of natural resources is the 'no harm principle' which enjoins States to enact effective environmental legislation, set environmental standards and objectives within their domestic jurisdictions to ensure that the pursuit of economic development is not prejudicial to environmental needs. The 'no harm principle' as set out by the Rio Declaration has become widely acknowledged as a principle of customary international law and reflects in major instruments creating obligations on States in the exploitation and management of natural resources (John, 2002). Principle 15 of the Rio Principles provide for necessary precautionary measures by States to avoid environmental damage, while principle 16 provides for the Polluter Pays Principle (PPP) which shall be analysed in the Nigerian context.

3. Environmental Protection under Regional Instruments

The European Union (EU) has always served as a good example of a regional organisation which has shown greater interest in the protection of the environment with stronger environmental policies which bind its members. The EU has adopted a number of Directives aimed at protecting the environment and creating obligations and liability on member States. Some good examples are: the EC Directive 2004/35 on environmental liability in relation to environmental damage which member States are under obligation to transpose into their national laws; Council Directive 92/43/EEC on the conservation of natural habitats and wild fauna and flora which establishes a coherent European ecological network, and conservation of wild birds, and Directive 92/43/EEC which places obligation on Member States to contribute proportionately through designation of special protection area hosting natural habitats and of wild fauna and flora.

The EU Liability Directive reinforces the polluter pays principle to ensure that the Member States shall ensure that the operator of an occupational activity shall take precautionary steps and measures necessary to minimise environmental damage. Where such contemplated damage has already occurred, the person whether public or private shall take immediate remedial steps to abate and repair such damage (Lammers, 2007). The European framework appears to be very comprehensive in creating obligations and ensuring mechanisms for the realisation of its environmental policies within the EU.

As it relates to Nigeria, the African Charter on Human and Peoples' Rights is the most comprehensive regional instrument on human rights, with provisions for environmental rights. Article 24 of the Charter provides for

'rights of all people to the satisfactory general environment favourable to development.' It creates obligations on the Member States to recognise the rights of citizens as contained in the Charter and to 'undertake to adopt legislative and other measures to give effect to them.' The Charter establishes a nexus between economic development and the obligation to protect the environment (Emeka, 2009). Article 24 of the Charter creates the legal basis for the rights of individuals, groups and civil society to demand account and seek redress for harmful damage of the environment through the instrumentality of the African Commission both at the national courts and regional courts, even when such rights are not expressed in the national laws of the States.

While the African Charter serves as a good example of a regional instrument with express environmental rights, the European Convention on Human Rights ECHR in contrast lacks such express provision. Despite this lapse, the European Court of Human Rights has always inferred the existence of an environmental right from the interpretation of other express provisions in the ECHR, e.g., right to respect for private and family life (Article 8 ECHR). The essence of this analysis is to stress that environmental right has become firmly established both in international law and regional instruments, whether express or inferred. This has created a corresponding obligation on the State to ensure the protection of this right.

4. Environmental Protection under National Laws (Case Study of Nigeria)

Section 44 (3) of the Constitution of Nigeria is unambiguous and expressly vests in the federal government the:

Entire property in and control of all minerals, mineral oils, and natural gas in and under or upon any land in Nigeria or in, under or upon the territorial waters and Exclusive Economic Zone of Nigeria.

This right of control and ownership creates the concept of public trust between the people of Nigeria and the government, establishing the duty to protect. However, the obligation of the government towards environmental protection and the right accruable to its citizens is a non-justiciable right which does not immediately confer a realisable right to seek redress. The jurisdiction of courts is limited in matters contained under chapter two of the constitution of Nigeria, which has always created a leeway for the government to evade responsibility from matters relating to economic and cultural rights, within which the right to satisfactory environment falls. Interestingly, with the ratification of the African Charter on Human and Peoples' Rights, there has been established a legal basis for the obligation of government to protect the environment under the domestic or national law of Nigeria (Amos and Anthony, 2012).

The essence of this narrative is to establish the fact that even with the abundance of legislative frameworks and laws for the protection of the environment from the available international, regional and national instruments discussed above; issue of environmental pollution has continued to persist in most developing countries like Nigeria due to the struggle for foreign direct investment. Most foreign investments between developing States and MNCs are regulated by BITs which tend to focus more on the protection of the investor and granting free access to raw materials of the host State with little attention paid to environmental regulation. The focus on economic development has often relegated the need for environmental protection in favour of MNCs as most developing States relax the enforcement of both international and national laws to encourage foreign investors.

4.2 Corporate Investment in the Oil and Gas Sector of Nigeria.

Corporate investment in the oil and gas sector of Nigeria dates back to the colonial era (Steyn, 2003). During this period, oil exploration and exploitation of resources was almost the exclusive right of British companies and companies permitted by the British, under the Oil Ordinance No. 17, 1914 (Yinka, 1987). By this provision, Shell D'Arcy Company, which was jointly owned by Shell and British Petroleum (B.P), became the foremost multinational oil company that was granted exclusive concessionary right to explore oil in Nigeria, as early as 1937 (Bronwen, 1999). Oil exploration yielded tangible results in 1956, following the discovery of crude oil in commercial quantity at Oloibiri in the Bayelsa State of Nigeria.

Shell maintained its dominance in the Nigerian oil and gas sector till the late 1950s when the concessionary right was reviewed downward to create room for other multinational oil companies like Mobil, Agip, and Chevron/Texaco which were subsequently granted rights to explore and produce oil. With the attainment of independence in 1960, the government of Nigeria began to show greater interest in the management and control of the oil and gas sector with increased profit (Scott, 1970). With reasonable apprehension of the bad experience of colonisation and the exploitation of natural resources (Tunde, 1995), Nigeria began to legislate strict economic policies to restrict foreign investors in favour of indigenous enterprises, while nationalising and expropriating some foreign investments and assets, and increasing its equity stake in the oil industry (Sarah, 1994).

Foreign investment in the oil and gas sector is done through a joint venture with a State-owned company; Nigerian National Petroleum Corporation (NNPC). However, the promotion of local enterprise and the restriction of corporate investments by MNCs did not yield the much anticipated economic development due to the lack of technology and the huge capital required to invest in the oil and gas sector of Nigeria (Olufemi, 2008). This necessitated the review of national economic policies to open up the economy to foreign investment. The Desire for accelerated economic development led to the enactment of new laws and the repeal of other legislation which hitherto restricted foreign investments (Akpotaire, 2005). The Enterprise Promotion Act of 1989 was introduced to repeal the indigenisation policy to usher in foreign investment and deregulation of the economy, while other laws were subsequently introduced with the focus on privatisation and commercialisation of the economy to facilitate foreign investments; Public Enterprises (Privatisation and Commercialisation) Act 1990.

The Nigerian Investment Promotion Commission Act subsequently repealed other national legislation which restricted foreign investments and made provision for 100 percent investment in every sector of the economy except the oil and gas which is regulated through a joint venture with the NNPC. This facilitated the inflow of MNCs and foreign investments in Nigeria. The rationale for this renewed desire for corporate investment through national legislation was as a result of the bad experience of colonial exploitation which necessitated balancing the quest for accelerated economic growth while the control of the sensitive sectors of the economy which contributed immensely to the national wealth of the country.

4.3 Oil Exploitation by MNCs in Nigeria

The oil and gas sector of Nigeria is the most sensitive economic sector and yields a greater percentage of the country's foreign exchange (Fayax et al., 2012). Nigeria's economy is to a large extent dependent on the proceeds from oil export, which accounts for more than 40 percent of the gross domestic product (GDP). In 2000, almost 98 percent of Nigeria's export earnings were from the oil and gas sector, reflecting the impact of corporate investment in this sector (Gbadebo, 2007). The three major multinational oil companies operating in the oil and gas sector of Nigeria are Shell, Exxon Mobil and Chevron/Texaco which are all foreign oil companies. Shell has the highest stake, accounting for more than 40 percent of the total oil production in Nigeria. Oil production is largely undertaken by MNCs with parent companies in either Europe or America, with their subsidiaries incorporated in Nigeria, under the Companies and Allied Matters Act.

This dominance of MNCs is because domestic companies' lack the required capital and technology needed to invest and control the oil industry fully. However, MNCs operating in most developing countries like Nigeria have played their roles as catalysts of development, assisting the host communities where they operate in the development of infrastructure, the building of schools, healthcare facilities, and other social amenities. In Nigeria, MNCs complement government's efforts by taking over some aspects of the traditional responsibilities of the government in the provision of social welfare, the creation of job, sponsoring of developmental projects, partnering with international agencies like the United Nations Development Programme (UNDP) to assist communities where they operate.

Nonetheless, while appreciating the positive roles of MNCs in Nigeria, it is important to juxtapose this with the negative impacts of MNCs in their operations. This is because as corporations generate wealth for the country and try to meet up with the varying socioeconomic demands from by the society, they also have the desire to increase their profits margin. This conversely influences their mode of operations, leading to reckless exploitation of the environment, corrupt practices and complicity in human rights abuses (Ratner, 2001). Activities of MNCs caused environmental damaged ranging from an oil spill, gas flaring to noise pollution.

Consequently resulting in an increase in transnational litigations and strained relationship between MNCs and the indigenous people, as demonstrated in the case of *Wiwa v. Shell*. Sadly, the overwhelming influence of MNCs in Nigeria like other developing States makes it quite difficult to implement some environmental policies like the 'polluter fully pays principle,' which might directly affect their operations, coupled with the complex nature of MNCs which makes regulation quite challenging (Dine, 2002). MNCs operate in more than one country and carry on business across different countries with different laws and legal systems, which create a trans-boundary personality and complex structure that makes it lack definite control by single national law or international law (Jargers, 2005). The available legislation in Nigeria is more of general provision and does not directly regulate MNCs but rather regulates corporate operations in the oil and gas sector, which unwittingly creates a leeway for MNCs to evade the strict grasp of the law.

4.4 Legislative Frameworks for Corporate Operations in the Nigerian Oil Industry.

As expressed *supra*, Nigeria like most other developing nations of the world has been party to many treaties and international conventions which have laid obligations on the Member States to establish appropriate legislative frameworks for the protection of the environment and the prevention of pollution within their territories. Examples of some of these environmental instruments ratified by Nigeria are International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971; International Convention on Civil Liability for Oil Pollution Damage, 1981; African Convention on the Conservation of Nature and Natural Resources, 1968. Over the years, Nigeria has put in place a good number of laws and regulations that regulate oil activities and environmental issues (Nwilo and Badejo, 2005). Some of the laws regulating the oil sector of Nigeria are:

4.4.1 Oil Pipelines Act (1956)

This Act 'governs the grant of licenses for the establishment and maintenance of pipelines', it is important to this research to the extent that it deals more on the issue of compensation arising from the tortious act of the holder of the license and also express provision on the jurisdiction of court on issues of compensation where individuals or native community interest are affected (Friday, 2009). Even with the express provision of this Act, very few cases of compensation either by individuals or native communities have been successful before the Nigerian courts. This is due to several reasons like lack of political will by the State, weak institutions, national jurisdiction and the cost of prosecuting.

4.4.2 Oil in Navigable Waters Act (1964).

This serves as the instrument for the transposition of the International Convention for the Prevention of Pollution of the Sea by Oil of 1945 by virtue of which its provisions become part of the national laws on the protection of the environment. The Act deals specifically with navigable water prohibits the discharge of any form of oil into prohibited areas of the sea within Nigeria territorial waters and prescribes appropriate punishment for default.

4.4.3 Petroleum (Drilling and Production) Regulations, (1969).

This was made under the Petroleum Act which is the principal framework for oil operations in Nigeria. This Act deals directly with oil drilling and production activities within Nigeria requiring all operators who are licensed to undertake such exploitation activities to 'adopt practicable precautions to prevent pollution of inland waters, river courses, the territorial waters of Nigeria or the high seas by oil or other fluids or substances.' Regulations 17, 19 and 22 deal with issues relating to rights of the indigenous people to their ancestral lands and objects of

vention. This legislation made more of a general provision for responsible operations without any strict liability for non-compliance.

4.4.4 *Environmental Impact Assessment Act, (1992)*

This Act is key to the issue of environmental considerations especially in areas of large projects; it aims at ensuring that potential environmental impacts are foreseen and necessary measures adopted to cushion such effects. The EIA 'has been adopted by many countries of the world as environmental management and planning tools' (Fatona, Adetayo, and Adeola, 2015). Environmental Impact Assessment is mandatory for development projects likely to have an adverse impact on the environment before the commencement of such project. The relevant authorities are required to satisfy themselves of the compliance of the operator with the EIA requirement before issuing permit or license to such body. The challenge of effectively utilising and applying the EIA in Nigeria stems from the lack of scientific and technical expertise (Van, 1995).

4.4.5 *National Oil Spill Detection and Response Agency Act -NOSDRA (2006)*

This is principal legislation on environmental protection in the oil and gas sector of Nigeria (Ken, 2011). It provides for the establishment of the National Oil Spill Detection and Response Agency and for Related Matters. The objectives of the Agency by section 5 of the Act is to coordinate and implement the National Oil Spill Contingency Plan for Nigeria, identify high-risk areas as well as priority areas for protection and clean up. It is against this background that the question as to the efficacy of this agency can be addressed considering the perennial issues of oil spills in the Niger Delta especially the recent Ogoni clean up the issue which is predicated on the UNEP report (Edwin, 1998).

4.4.6 *National Environmental Standards and Regulations Enforcement Agency Act 2007*

The Act established NESREA in 2007 as Nigeria's principal environmental watchdog, under the Federal Ministry of Environment, Housing and Urban Development (Ladan, 2012). NESREA is an enforcement agency with the primary function of implementing, environmental standards, regulations, laws, policies. Regrettably, s. 8(g) of the Act limits its power to other sectors of the environment exclusive of the oil and gas sector. Ironically, NESREA has the mandate to ensure compliance with provisions of international agreements, protocols, conventions, and treaties on the environment to which Nigeria is a party to. It creates a reasonable apprehension on possible mischief intentionally created to relax some forms of strict regulation of the oil and gas sector so as not to jeopardise government's interest in the sector.

5. **Challenges to the Prevention of Environmental Pollution in Niger Delta**

Considering the persistence and the rise in oil pollution and environmental degradation in the Niger Delta, one would wonder if the problem is the lack of effective laws and regulations or the lack of enforcement mechanisms. From the available list of laws, regulations, and legislation of which some have been listed, it becomes reasonable to conclude that the problem is not in the availability of the laws. In terms of the necessary institutional frameworks, a good number of agencies have been established for the purpose of environmental protection in the oil and gas sector. Some of these agencies are *The Nigerian National Petroleum Corporation* (NNPC), a state-owned petroleum company which undertakes joint venture agreement with other multinational Oil Companies; National Environmental Standards and Regulation Enforcement Agency (NESREA); National Oil Spill Detection and Response Agency (NOSDRA) Federal Ministry of Environment, etc. A case in point is the requirement of Environmental Impact Assessment before the grant of permission for certain large projects.

Sadly, the enforcing agency which is the National Environmental Standards and Regulations Enforcement Agency, established in 2007, under the NESREA Act, has been helpless in cases where big multinational oil companies fail to comply with this requirement. In the case of *Oronto Douglas v. Shell Petroleum Development Company Ltd. & Others; Suit No: CA/L/143/97, 1998*. the cause of action as canvassed by the plaintiff/appellant arose from the failure of the defendant to fulfil the requirement of EIA before engaging in a project for the

production of liquefied natural gas. One would ask why a private citizen would take over a matter which was supposed to be handled by the government.

According to UNEP's report on Ogoniland, the National Oil Spill Detection and Response Agency (NOSDRA) 'lacks qualified technical experts and resources,' it further stressed that the agency 'has no proactive capacity for oil-spill detection.' The idea of voluntary regulation of CSR of Multinational Oil Companies in the Niger Delta also hinders the full implementation of some environmental policies because some corporations present admirable scorecards of social responsibility and environmentally friendly measures in carrying out their business operations, while in the real sense they are operating below standards.

Apart from the issue of lack of funds and technical expertise, corruption has also played a very crucial role in undermining the effort of government in environmental protection through the various agencies. A good example is the Oil Minerals Producing Areas Development Commission which was established in 1992. This agency was bedevilled by corruption and fraud which was responsible for its short lifespan and subsequent replacement with the Niger Delta Development Commission (NDDC) in 2000 (Akpan, 1998).

Another militating factor is the lack of political will as evident in the weak and unrealistic attitude of the government towards the implementation of the law (Nigeria Associated Gas Re-Injection Act, 1979, section 3.) against gas flaring in Nigeria from 1974 till 2012. Each successive government continued to extend the deadline with empty threats of invoking sanctions without enforcement of the penalty on gas flaring. This ultimately calls for a change of approach which has been advocated in this research.

6. The Principle of Corporate Liability and Polluter Pays in Nigeria.

The polluter-pays principle (PPP) is a significant principle of international environmental laws and policies (Ling, 2015). It requires polluters to bear the liability for the prevention and cleanup costs for the adverse environmental consequences resulting from their activities or actions (Gaines, 1991). This principle acts as a mechanism for reinforcing the no harm rule under the Rio Declaration to promote sustainable use of natural resources with environmental considerations, and at the same time prevent, obstacles to international trade and investment.

In Nigeria, National Policy on Environment provides that in solving environmental problems, solutions directed towards; abatement, remediation, and restoration of the environment must be founded on the PPP and other environmental principles. However, as interesting as this principle may sound in ensuring corporate liability and accountability in environmental management, recent events indicate only a theoretical value of this principle and nothing more pretentious.

This position is founded on the failure of Shell to act on the Amnesty and UNEP report on Ogoni, which clearly identified Shell as the polluter. Rather than hold Shell responsible for the pollution in line, the Federal government of Nigeria took over the clean-up while appealing to Shell and other stakeholders for assistance (Vidal, 2011). However, a critical consideration of the nature of oil exploration licencing in Nigeria shows a joint venture transaction between Nigeria through the NNPC, and the multinational oil companies which in essence creates a complex relationship and shared responsibility between the two actors- Nigerian government and the multinational companies, with government seeking to maximise its returns (Gabriel, 2006). By virtue of this joint venture arrangement, the Federal government becomes as much as liable as the multinational oil companies for the purpose of attaching responsibility, either directly as a party to the transaction or vicariously. If this is so established, then who has the right to determine the polluter in such circumstance?

Another critical area of concern is in determining the level of liability or valuation of environmental damage. This is because it is almost practically impossible to put a cost on the environment, as there is no index for measuring the depth of damage caused (Nick, 2002). By virtue of this technical lapse, there is difficulty in

ascertaining the appropriate degree of compensation. It becomes disturbing to acknowledge that issues of inadequacy of the available sanctions for harmful conducts which are detrimental to the environment are yet another challenge facing the PPP. For instance, the Petroleum Refining Regulation Act of 1974 provides for a fine of 100 naira or six months imprisonment, as a penalty for failure to conform to standards of procedure in refinery practices. This penalty is not only grossly insufficient but ridiculous as it has no meaning because as much as MNCs cannot serve the prison term, the fine of 100 nairas is very insignificant. This law is more than 40 years old and obviously needs to be updated in line with modern reality and value of money.

The most severe penalty under the various environmental legislation is the revocation of licence or cancellation of lease of the polluter which is rarely resorted to even in the face of the flagrant violation of environmental regulations. The case of *Douglas v. Shell; Unreported Suit No. FHC/L/CS/573/96* readily comes to mind when commenting on the reluctance of the Nigerian government to enforce its own environmental policies against erring MNCs. This reaffirms the assertion that lack of political willpower has been a major setback in the implementation of environmental regulations in Nigeria. The available laws and regulations are only obvious in their various statute books without impactful translation.

7. Concluding remarks and recommendations

What has become apparent from our discussion above is the fact that despite the enactment of numerous laws designed and constructed to prevent and control environmental degradation in Nigeria, there still exists a huge lacuna between commitment extracted by these laws and enforcement. Most of these laws have not included concrete suggestions as to how successful enforcement might be appraised and achieved.

Most of the legal instruments examined above have established a number of institutions enabling them with authority and obligating them to administer the specific legislation. However, failure to pay satisfactory consideration to inspection and monitoring, and failure to put in place procedures for engaging the regulated Multi-National Corporations and deterring violations, give rise to a culture of impunity and weaken the effectiveness of environmental laws.

The preeminent environmental criterions in the world will be ineffectual if they are not observed with or efficiently enforced. Obedience and implementation guarantee good environmental governance and respect for the rule of law. They similarly regulate the compatibility of environmental standards with practical realities and provide an index for measuring whether the standards should be sustained, modified or annulled. Ultimately, good governance is a requirement for attaining the paradigm shift necessary for Nigeria to establish and maintain a sustainable development path in the enforcement of environmental laws and preservation of the environment. The following recommendations are therefore inevitable if Nigeria must get around this problem.

1. The consciousness of Nigerians should be invoked about the hazards and the consequences of pollution of the environment. This will require vigorous, consistent and regular enlightenment by Government.
2. This enlightenment should be focused on acceptable standards of environmental behaviour, operation, and compliance and should be made accessible to the general public.
3. The Government should try as much as possible to equip its enforcement agencies on how to ensure the effective enforcement of the environmental laws in existence. Providing training manuals for enforcement officers is a good practice which helps to avoid arbitrariness.
4. All project programmes predicted to have a significant negative impact on the environment will require an effective environmental monitoring programme.
5. The world is changing at a fast rate as technology advances, and successful enforcement requires that administrators keep up to the speed of appropriate technological tools and equipment to enable enforcement officials to discharge their duties effectively.
6. Sufficient funds should be allocated to enforcement agencies by the Government at all levels to enhance the execution of projects geared towards the improvement of the environment. Funding gap and limitation is a cog in the wheel of monitoring and enforcement activities in Nigeria.

7. The Nigerian legal system appears to be too weak in the interpretation and enforcement of environmental laws. The system seems to be overwhelmed by the influence of Multi-National Corporations. There is the need to establish strong judicial and administrative procedures for legal redress and remedy of actions affecting environment and development that may be unlawful or infringe on rights under the law.
8. Similarly, special environmental courts presided over by courageous judges should be established to entertain environmental matters for speedy and better enforcement of environmental laws in the country. This would ensure quick response to the needs of the environment, popularize environmental laws and aid enforcement of those laws.
9. All agencies saddled with the unnerving task of enforcing environmental laws in Nigeria lack autonomy to develop and implement its compliance and enforcement program free from political intervention or external pressure related to economic development or other government or private sector priorities. In this connection, we recommend that such agencies should be granted legal, operational autonomy and independence to ensure effective service delivery.
10. Public involvement is central to the enforcement of environmental law. Many countries have implemented the principle of the Rio Declaration, and more recently some have implemented the Aarhus Convention by enacting legislation that provides for public participation. This is why the federal environmental and civil rights statutes should be amended to ensure citizen access to the courts for environmental violations.

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Classification of Credit Security in Nigeria: Resolving the Perceived Dichotomy

Jacob Otu Enyia¹, Emmanuel Usang Okon²

^{1,2} Department of Commercial and Industrial Law, Faculty of Law, University of Calabar, Nigeria. Email: joenyia@unical.edu.ng

Abstract

This article is focused on the classification of credit security in Nigeria with a view to resolving the perceived dichotomy in the categorization. Credit security generally is within the ambit of property law which is circumstanced in secured credit. The work also attempts to determine the legal basis of this classification and the inherent utilities. We summarize that classification of security should be maintained for the purpose of distinction and clarity in aid of the unwary and non-legal minds.

Key Words: Credit Security, Security Interest, Property Law, Real Security, Legal and Equitable Security, Charge, Secured Credit.

Introduction

In General terms, security or security interest is that proprietary or personal assurance that is given and that helps secure the repayment of a debt or that which crystallizes into value for the benefit of the creditor in case of default by the debtor. It is based on this understanding of security that we will proceed to discuss the classification of security with the aim of resolving the perceived dichotomy in the categorization of security or security interest. The subject matter of this article is of importance to the law of secured credit as well as to the world of commerce generally. Due to the continued ingenuity of financiers and their legal advisers, the world of commerce has developed several forms of agreement which are intended to provide security but nevertheless do not in law create a security or security interest. Hence the aim of this paper is to explain the various classifications of security and the legal benefit derivable therefrom.

We also examined the concept of classification of security which is theoretical and is aimed at laying the conceptual foundation which underscores the various types of security. Furthermore, we identify and analyzed each of the various types of security. We have employed a method of juxtaposing each class of security against the other in order to bring to focus the succinct distinctions between them as well as appraise the legal right conferred by each.

Moreover, the four methods of creating real security were discussed. The focus here is a comparison each of mortgages, charge, pledge, and lien. An analysis of the watertight compartmentalization of security with the aim

of highlighting the overlapping areas that exist was effected. And a conclusion on responding to the question of the seeming dichotomy in the classification of security.

Property Law and The Concept of Classification of Security

The pattern of classification of security depends largely on the influence of property law which varies widely from jurisdiction to jurisdiction, particularly on the concept of ownership and possession. The owner of a property is the person who has the maximum legal rights over the property (including the right to possession). He may, however, part with possession without surrendering ownership. (Omotola, 2006, p. 27) Ownership is a legal concept which is an embodiment of various rights which an owner can exercise over his property, from the right of usage to pure possession, to the right to exclude others, and in the extreme case the right to destruct. What in common law is described as absolute interest/radical title. While possession is a state of fact, and involves actual control over property, for example where the owner of land lease same to a tenant, the tenant acquires legal possession and can assert his right of control against anyone (even against the owner, if the owner in breach of the lease attempts to regain possession) (Omotola, 2006).

Further to the above, According to Roy Goode, it appears to be recognized everywhere that a security interest involves the grant of a right in an asset which the grantor owns or in which he has an interest (Goode R. M., 2003, p. 3). However, the very concept of ownership and possession differs in the manner in which these concepts are understood for our purpose and as such the classification of security or what constitutes security interest depends on the polarized understanding of these two important concepts.

The most obvious divide is between the formal and the functional approach. The formal approach presupposes a surrender of a person's interest in his own property as security for a loan. The interest in question being proprietary in nature whether ownership or possession, while the functional approach envisages a conditional buyer, a lessee with an option to purchase and in many cases, a lessee under a finance lease as the owner and the interest of the conditional seller or lessor as limited to a security interest so that the reservation of title is equated with a purchase money chattel mortgage. However, under the functional approach where a person takes finance for a project and equally renders that project as security or creating security interest in the financed project in favour of the creditor, it is considered and assumed that the holder of the proprietary interest in the project is the creditor, while the lender merely reserve security interest in the project against the owner. This functional approach is popular across the united state as the basis for creating security, loan and project financing.

Contrary to the above, Roy Goode in explaining formal approach expressed and that the formal is one which sharply distinguishes the grant of security from the retention of title under conditional sale, hire purchase and leasing agreement, on the basis that the buyer or lessor has merely a possessory interest subject to which the seller, owner or lessor continues to enjoy absolute ownership by virtue of the agreement between the parties (Goode^{2003, p. 3-4}). The crucial difference between the functional and formal approach of the concept of classification of security is in the question, where does the proprietary interest in the subject matter security fall. In other words, who holds the proprietary interest subsequent to the transaction? We found that, in the case of the formal approach, it envisages a transfer or granting of rights or proprietary interest whether ownership or possession in the subject matter of security from the debtor/borrower to the creditor/lender, whereas in the case of the functional approach, ownership over the subject matter of security remains with or continues to be vested in the borrower, and the lender having enforceable interest in the property.

In Omotola's view (Omotola, 2006, p. 18) while reacting to the mid-way course of security that is underscored by the functional approach, opined that this mid-way course of security which while performing the functions of security do so with a prima fall under laying right of property. Such security which includes floating charge retention of title clause or Romalpa clause and another seemingly contractual device, do in fact possess attributes which could well qualify as property. Hence the concept of security or the place of security in loan transaction or secured credit transaction presupposes the grant transfer and attachment of proprietary interest or right to the creditor. This, however, is inadequate as a basis for classification, as it is submitted that all security presupposes some proprietary right though not necessarily ownership right in the holder of the security (Omotola, 2006, p. 7). In essence, this functional approach enables us to ascertain whether a transaction or relationship has created an

obligation for which an interest in apply may serve as protection, assurance or indemnification of the obligee in the event of default by the obligor. (Smith, 2001, p. 6) In the view of Allan, he concluded that that anything that performs the function of a security must be security(Allan, 1989, p. 345). The economic value of this statement is really exhaustive, and it is now apparent in modern time going by the continued creation of various forms of an arrangement of security or security interest in a secured credit transaction. (John, Vol. 5, p. 2470).

From the above discussed, we resolved that despite the divergent view that exists, i.e., the functional and formal approach, classification of security underscores determines enforcement and the extent of the right acquired by a creditor. While from this formal perspective proprietary assurance in term of ownership and possession render the fulfillment of the obligation more certain on the other hand, the functional school which postulate that anything which makes money more assured in repayment or more recoverable regardless of its proprietary value in term of legal ownership, in our opinion, render the acceptability and enforceability such security less certain, economically viable and legally secured.

Classification of Security

According to Goode, the form of consensual security known to the law are the mortgages, which is a sanity transfer of ownership; the pledge, which creates a limited legal interest by the delivery of possession, and the contractual lien. Where goods are deposited for repair, and the repairer then asserts a lien for unpaid repair charges as well as where a statute provides for charges by way of legal mortgage, all other charges are equitable (Goode, 2003, p. 5). While Omotola classified security into proprietary securities, personal securities, lien, and charges (Omotola, 2006, Chapter 2), Smith broadened his classification of security. The basis of classification by these legal scholars depends largely on what they considered as security or security interest. Whether the transfer of the entire proprietary interest over the property of the debtor or the creation of some form of encumbrance by way of a contractual device over the property.

Real Security

Real security confers an estate or interest in the property of the debtor or of a third party on the creditor by way of security. It takes the form of a right in rem over the specific property to the satisfaction of a particular debt so that the debt is a primary charge on the property. By the reality of real security, the property subject matter of the security is in principle, that of the creditor. Thus it is the asset of the debtor that forms the security.

Smith (Smith, 2001, p. 9-10) identified three methods of classifying real security as follows. Security by which the creditor obtains a proprietary right in the subject matter of the security such as a mortgage. In this circumstance, the debtor's title in the property whether legal or equitable is conveyed to the creditor by the debtor to be held by the former pending when his claim under the mortgage has been satisfied. Therefore what the debtor is left with at this point is a right called the equity of redemption (Rhodes, 1971).

Secondly, security which depends only on the creditor's actual possession of the subject matter of security the creditor continues to enjoy this form of security so far he remains in possession lien.

Thirdly, security which gives the creditor neither proprietary nor possessory right but a simple appropriation of specific property to the satisfaction of the debt. This is another instance of legal fiction where the creditor does not "own nor hold" the subject matter but acquires some form encumbrance over the property which right may be exercised through the judicial sale of the property.

There is no doubt that the proprietary right rendered through a mortgage in the first circumstances remain the best form in this regard conferring enforcement right which may be asserted against the debtor or even third party. This creditor is fully fortified as to property in any hand and the right to enjoy and exercise ownership over property.

Personal Security

This is where security is in the form of a personal undertaking which reinforces the debtor's primary undertaking to make payment or other performance in case of default by the debtor. We can, therefore, see personal security as the promise by a person to pay another's debt in the failure of the primary debtor to so pay. Personal security exists in two forms namely: by guarantee or indemnity. According to Smith contract of guarantee assures the creditor of the guarantor's secondary liability in the event of the inability of the principal debtor to meet his financial obligations even after adjudged liable by the court. (Smith, 2001, p. 12)

In this case, the creditor would have to proceed first against the principal debtor by the action in court, and it is only where the latter assets are insufficient to meet the financial obligation that the guarantor is proceeded against. However, in a contract of indemnity, the creditor is not obliged in law to proceed against the principal debtor first before suing the indemnifier. The obligation of a guarantor or surety is, therefore, collateral to that of the main debtor. The obligation created under a guarantee or indemnity may be a continuing type or a simple guarantee (Omotola, 2006, p. 20-21).

Legal and Equitable Security

The character legal security is such that the transferor's security or the debtor's title to the asset is in a legal form title and not merely an equitable interest. This subject matter of legal security involves the transfer of an existing asset to the creditor himself in conformity with any statutory formalities. By legal security, we should direct our minds to the creation of a legal mortgage on a particular property in compliance with statutory form and subsequent perfection of the creditor's title.

Accordingly, Goode identified equitable security as arising from six circumstances namely:

(1) the property relates to a future property; (2) there is no transfer or agreement for transfer at all, merely a charge (except for the form created by our law as a charge by deed expressed by way of legal mortgage); (3) there is no present transfer, merely an agreement for transfer or a declaration of trust by the debtor; (4) the transfer is not made in accordance with the formal requirement for the transfer of legal title; (*Savannah Bank Plc. V. Ajilo*¹⁹⁸⁹) (5) the transfer is made not to the creditor but to a third party as trustee for the creditor (for instance, a debenture trust deed); (6) the transferor's title to the asset is equitable not legal (Goode, 2003, p. 8).

The essential difference in effect between a legal mortgage and an equitable mortgage or charge is that a legal mortgage has priority over subsequent interest whereas equitable mortgage or charge may be overreached by a disposition to a bona fide purchaser for value of the legal title without notice of the equitable interest. Taking equitable interest as security constitute a weak and violate security for a creditor in a legal system where registration of interest (legal interest) determines priority. In fact, inchoate legal interest or security leaves loopholes for a defaulting debtor's advantages as in the case of non-compliance with statutory formalities

Tangible and Intangible Security

This is a further classification of real security. Real security may be over the tangible or intangible property. The distinction, in this case, relates to the mode of creation. Tangible security may be subject of possessory security by way of pledge and contractual lien. Whereas, intangible security like property may be created only by way of mortgage or equitable charge (*Okuneye V. FBN*¹⁹⁹⁶).

Possessory and Non- Possessory Security

In explaining this category of securities, Goode wrote that where security relates to tangible property, it may be either possessory or non-possessory. Possessory security may take the form of a pledge or contractual lien, the pledgee or lienee having limited legal interest in the asset. By contract, intangible property cannot be rendered into possession however where they are converted into documentary intangibles like title deeds or certificate of Occupancy; they nonetheless can be subject of a pledge, hence constituting an equitable charge.

Title Transfer and Charge

Transfer of title is a genre of mortgage whereby legal title or the full paraphernalia of proprietary title in property is conveyed or assigned or rendered to the benefit of the creditor as security. In essence, all of the debtor's interest in the property is staked against the loan, for example, mortgage. Whereas, in case of charges, an encumbrance is created over the debtor's property leaving the debtor as an owner but imposes a clog on his ownership in favor of the creditor. An instance of this is hypothecation or a charge by deed expressed to be by way of legal mortgage.

Fixed and Floating Security (Security In Specie & Security In Fund)

This classification is particularly important against the backdrop of corporate financing. Debenture and charge or attachment of corporate property to a loan transaction under the Companies and Allied Matters Act (Laws of the Federation of Nigeria, 1990). A debenture which is backed by a fixed charge supposes that the asset subject of security is already appropriated to the satisfaction of the debt immediately or upon the debtor acquiring an interest thereunder (Siebe Gorman and Co Ltd V. Barclays Bank Ltd., 1979). When a company gives a fixed charge, it can only deal with such assets subject to the charge (Omo-Bare V. New Nigerian Bank Ltd., 1978), whereas, under a floating charge appropriation differs. According to his Lordship Lord MacNaghten in the case of *Illingworth v. Houldsworth* a floating charge "is ambulatory and shifting in nature, hovering over and so to speak floating with the property which it is intended to affect until some event occurs or some act is done which causes it to settle and fasten on the subject of the charge within its reach and grasp." The creditor's right attaches in the first instance not to a specific asset but to a shifting fund of the asset. In a literal sense, we may say that fixed security is about attachment to a particular asset of the company while floating security attaches to the generality of the company's asset both present and those to be acquired in future.

While the classification of security particularly into "Real and Personal Security" remains watertight in the laws of secured credit, it does not, however, seem to be a rigid categorization in the practical sense, the transfer of title may seem opposite to a charge or a real security completely in contrast with a personal security; Activity in the commercial world which derives the law continue to evolve the third limb for each of these classifications. Hence, a creditor may take real security from a surety or guarantee beyond the superadded personal obligation to secure the loan and attach same in the event of default by the principal debtor.

Mortgage, Charge; Pledge and Lien; Compared

To further buttress the classification of security as discussed above, we consider it appropriate to highlight the distinction that exists between the aforementioned mode or the methods of creation of real security. English law recognizes four type of real security namely mortgage, pledge, charge, and lien (Goode, 2003, p. 5). These four types have since formed part of Nigerian law through the reception of English law in Nigeria. Smith commenting on the status of the four opined that use of these nomenclatures in recent times had betrayed their traditional associated meanings, definitions, and context in which they were used. (Smith, 2001, p. 12).

In the traditional sense, charges differ from a mortgage in that a charge was a mere appropriation of property or some form of interest or right or encumbrance on the debtor's title to the creditor existing only in the imagination of equity and transferring neither proprietary nor possessory security. Thus mortgage gives ownership and possession to the creditor, and charge merely reduces the potency of the debtor's legal right in his property without giving any proprietary interest to the creditor except some form of a right exercisable through the judicial sale of the property (Fasakin V. Fasakin, 1994). In both cases, the mortgagor, like the chargor, is still the real owner of the property until enforcement of the security, in the eye of equity, the real owner of the mortgaged property is the mortgagor despite the conveyance to the mortgagee. Thus, in essence, both the mortgagor and the chargor have lost nothing from the transaction. It should be noted that a charge will not secure the three most important rights for the Chargor, unlike a mortgage. These include the right priority over unsecured claims, the right of property and the trace, i.e., to follow up the property into the hands of third parties limited to a bone fide buyer without notice. However, by virtue of the property and conveyance law of the Old Western Nigeria which now applies in the various states, a legal charge may be created today with all the

ingredient of a mortgage. The law now recognizes a charge by deed expressed to be by way of legal mortgage as a proper form of a legal mortgage. The Companies and Allied Matters Act also defined a charge to include a mortgage.

Consequently, the real effect of a mortgage is much the same as that of a charge. Financiers and legal advisers have in recent times provided special power in charge instrument which practically makes available to the chargee the power of a mortgagee. Thus making the traditional difference mainly a formality and an academic exercise.

Pledge and Lien

A lien is a right over the property of another. This right is not proprietary in the real sense. Lien arises by operation of law independent of any agreement of the parties. A lienor has the following rights:

- (a) to retain the property until the owner has settled some debt owed to the lienor (common law or possessory lien), or
- (b) to sell the property in satisfaction of the debt (equitable lien). (Omotola, 2006, p. 21).

A pledge, on the other hand, is security derived from the express agreement. It is a voluntary deposit of chattel with a lender as security for a debt. There are two features of a pledge in that a pledge provides the creditor security for a loan made to the debtor and that security takes the form of giving the creditor possession of the debtor's property until the loan is repaid (James, 1974, p. 224). The true distinction between a mortgage and a pledge is that, in a mortgage, the legal and equitable title is transferred to the mortgagee until the loan is repaid, whereas in a pledge only possession and not title is transferred to the pledgee. Thus an English mortgage is proprietary security whereas a pledge is possessory security. The pledgee always takes possession though the mortgagee can also take possession for fear of account of rent and profit, this right is rarely exercised. The circumstance of redemption of the pledge is more open (Ikeanyi V. Adighohu, 1957). A pledge is perpetually redeemable, unlike mortgage where the mortgagor's right may be defeated or extinguished by a foreclosure order.

A Dichotomy of Classification; Resolved

Here, the poser of whether classifying security into the various classes as we embarked upon in earlier discussion is still an important one in the light of the present market of secured credit and the law? We are of the opinion that so far the aim of secured credit transaction is to make the repayment of the loan more readily recoverable and thus lessen the risk involved in making advances to individuals and corporate entities. The commercial world must be made to understand that the long term held principle of freedom of contract may not be entirely convenient and assuring in relation to a secured credit transaction where the rules and principles of Property Law reign supreme. Each class of security as we have seen above comes with its own recognized and enforceable rights. Where it is a mortgage, the benefits accruing to the Mortgagee's advantage are well known, distinguished and certain except in rare circumstances where they can defect. A mortgage confers all of the advantages of the anatomy of secured credit.

Both charge and lien have their respective benefits as provided by both common law and the Nigerian statutes. The right to make claims against the property of the debtor and further to seek judicial sale where necessary, the right to retain the security until the debt or obligation against the lien exists is settled. However, as we have seen, the law in a bid to meet up with challenges of the forever evolving and ingenious world of financiers and their legal advisers has been watered down and resolved the concrete divide between the various classes of security. We have discussed above, the possibility of a charge conferring all of the benefits of a mortgage as provided by the Companies and Allied Act and The Property and Conveyance Law. Personal security which the 'real sense' does not confer the maximum security can be seen in today's world as ensuring what we can refer to as an 'all rounder form of security' combining the debtor's personal obligation with that of his surety, which can be enforced through an action on the loan; as well as attaching the surety's property as security for the transaction. Another instance is the reservation of title arrangement which is akin to a charge on the property.

Instances abound, both in law and in contractual instances that demonstrate that a dichotomy of classification of security into the watertight compartment is a theory that cannot be staunchly adhered to. More and more, the world of commerce has realized the direction of the present law and the old time saying that the law is an ass; however a note of caution must be sounded that prudence and ultimate sense of making security firmly secured and assured should be lighthouse for practitioners in this volatile area of secured credit law and practice.

Conclusion

In the paper, we have discussed the fundamental basis for the classification of security. We also embarked on a voyage of classification of security into the various heads, compared the four types of real security and found the melting point for classification of security. It is our considered view, therefore that classification of security should be maintained for the purpose of distinction and clarity in aid of the unwary and non legal minds, though the polarization intrinsically cannot be sustained due to the cited overlaps in law. Hence the dichotomy which exists in the classification of security should be seen as a means and not an end in itself.

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Note however that even now in English law, allodial, absolute interest, etc. are extinct, as a holder of land does so in possession for the Crown. A situation similar to the Land uses Act's leasehold interest, or estate that an individual enjoys.
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Anything that makes money more assured in its payment or more readily recoverable is deemed security. See John S. James, *Stroud's Judicial Dictionary of Words and Phrases* 4th Ed, Vol 5, p. 2470.
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Omotola *supra* see chapter 2
Smith broadened into two heads and it is under these that he discussed all of the different shades of security interest.
Supra Pp. 9-10.
This equity of redemption is crucial in differentiating a sale from a mortgage. A right to redeem his tied down the title at any time. It goes side by side the mortgage from the time of creation. Thus goes the saying once a mortgage, always a mortgage until foreclosure. See *Rhodes V. Dalby* (1971) AER 1144.
Smith *supra* p. 12.
Omotola *Op. cit* Pp. 20-21.
See ss. 108(1), & 109(1) of the Property and Conveyance law, Cap 100, Laws of Western Region. This Law now applies in the various states that constitute the old western Region.
As in the case of *Savannah Bank Plc. V. Ajilo* (1989) SCNJ 159, where the formalities of Governor's consent was not first had and obtained.
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Whether by a proper over the property or by deposit of the title deeds over the property with the creditor. See the case of *Okuneye V. FBN* (1996) 6 NWLR (pt 457) p.749.
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Should the American Manufacturing Competitiveness Act of 2016 Be Transported in Arab States?

Habib Kazzi¹

¹ Full Professor of International Trade and Investment Law (Lebanese University); Lawyer at the Paris Bar (France)

Abstract

This article makes the case for the transposition of the American Manufacturing Competitiveness Act of 2016 within the legal frameworks of Arab States. This legislation provides for a temporary cut tariffs on raw materials and other products not or insufficiently available on local markets, thereby enhancing the competitiveness of U.S. manufacturers in both local and export markets, and easing access of U.S. consumers to more affordable products. Needless to say, the adoption of a similar tool in the Arab States would provide effective leverage to support the economic diversification and export strategies undertaken over the last decade.

Key Words: Arab States, MENA Region, Miscellaneous Tariff Bill, Raw Materials, Competitiveness, Diversification, WTO Disciplines.

INTRODUCTION

As part of the national competitiveness strategy, the U.S. Congress has enacted, on May 20, 2016 the so-called “American Manufacturing Competitiveness Act of 2016” (AMCA) with the purpose to correct, on a temporary basis, distortions in the Harmonized Tariff Schedule of the United States that place an unnecessary and anti-competitive tax on manufacturers, retailers and other businesses across the country relying on imported raw materials and intermediate products for which there is no domestic availability or insufficient domestic availability.

While Congress had effectively addressed such distortions through the enactment of specific legislation with strong bipartisan support for three decades, the U.S. Manufacturing Enhancement Act expired at the end of 2012. Since then, manufacturers throughout the country have faced an annual \$748 million tax increase on their inputs, and the U.S. economy has suffered a \$1.875 billion economic loss (National Association of Manufacturers, 2016). At the same time, some economists reveal that such legislation would increase U.S. production by \$4.6 billion and support almost 90,000 jobs (SZAMOSSZEGI, 2009).

So far, American manufacturers are forced to pay tariffs on the materials they need but are not made in the United States. These needless taxes drive up the price of American-made products and make it harder for American business to compete in the global marketplace. By ensuring a more open and transparent process for the submission and consideration of petitions for temporary duty suspensions and reductions, the AMCA helps create economic benefits for consumers while bolstering the competitiveness of U.S. manufacturers on domestic

and foreign markets. While most Arab countries are engaged in comprehensive economic diversification strategies with mixed outcomes, the relevance of the introduction of such a mechanism in their legal frameworks is an inevitable issue.

It is widely assumed that the prevailing development model in Arab states still remains vulnerable. In the MENA region, the State is the most important economic actor, eclipsing all independent, productive sectors. This region's pathologies are mainly segmented labor markets, limited regional integration, and a weak private sector. Such a development paradigm is ultimately rooted in an economic structure that relies overwhelmingly on rents derived from fuel exports, foreign aid or remittances. Largely driven by geopolitical considerations, these external rents have expanded the public sector, bolstering its ability to provide employment and subsidized public consumption (MALIK and AWADALLAH, 2011).

Such a business environment adversely affects the performance of firms. The private sector in the MENA region is notable for its limited export presence, few productive spill-overs across firms, and has one of the lowest levels of productivity. In this context, a long-term vision for the region must, therefore, involve a gradual shift away from natural resources towards a globally competitive private sector. In virtually all countries that succeed in reducing poverty and unemployment, labor-intensive manufacturing was an essential component of the development strategy.

It is not a coincidence that the need for diversification has become the panacea of Arab policymakers. Government documents frequently cite diversification as a core development objective. International development institutions have, on their part, advanced globalization as a cornerstone, insisting on trade liberalization and deregulation of domestic economies. But apart from a few success stories in some Gulf countries (UAE, Oman, and Bahrain), diversification has merely remained a paper aspiration. Despite reforms launched in a decade, Arab firms still remain insignificant in export markets, with limited success in entering new markets or introducing new products.

Within the context of wider industrial policies, four industries related to raw materials are of critical importance for industrial development. First, the metal industries process non-ferrous metals such as aluminum, copper, and zinc, as well as ferrous materials such as steel. Second, non-metallic mineral products comprise the production of cement, ceramics, glass, and lime. These manufacturing sectors are characterized by the transformation of naturally occurring minerals such as limestone, silica, and clays through an energy-intensive process. Third, minerals are raw materials essential for modern society. They are used to build roads and houses and to produce cars, computers, and household appliances. The mining and quarrying industry which extracts these minerals is very important to industrial, social, and technological progress in Arab societies. Finally, the MENA region forest-based industries consist of four major sectors: woodworking, furniture, pulp & paper manufacturing and converting, and printing.

It is clear that strengthening economic diversification and private sector competitiveness is not a gamble or a twist of fate. This is the outcome of a delicate strategy based on instruments with short and long-term impact. For Arab States, economic and export diversification policies require wide-ranging reforms, including a more stable macroeconomic environment, an intensification of investment in infrastructure, an improvement of educational outcomes, the development of specific sectors, an easier financing for companies, particularly small and medium-sized enterprises (SMEs), the promotion of entrepreneurship through SMEs, and more generally the strengthening of business climate across the Arab region.

In this toolbox, the AMCA can play a crucial role by rewarding firms that produce and export in tradable sectors to compete internationally. Such a legal instrument may constitute the "missing link" in current policies by creating incentives for firms to improve their industrial production and technology, create jobs, spend more on research and development than savings achieved and, ultimately, develop export markets. In addition, such an initiative would be an appropriate solution to the failure of sporadic and opaque incentives for imports of raw materials provided for in some Arab countries, such as GCC States under GCC Common Industrial Law and Islamic financial instruments (Istisna).

The remaining article is organized as follows. Section I highlights the coverage and features of the AMCA. Section II discusses the compliance of the AMCA with WTO disciplines, particularly the Agreement on Subsidies and Countervailing Measures. Section III stresses the benefits for Arab economies of the transposition of the AMCA into their domestic legal frameworks. Finally, Section IV concludes.

Section I - Consideration and Assessment of Petition for Duty Suspensions and Reductions

Legislation providing temporary tariff suspensions on several hundred products of importance to U.S. manufacturing enterprises expired at the end of 2012, and tariff suspensions on two other lines expired at the end of 2014. The AMCA provides for a new process for the consideration and assessment of temporary tariff suspensions and reductions. Enterprises seeking tariff relief are to petition the U.S. International Trade Commission (USITC), which will examine such petitions, receive comments, and issue a report to Congress providing specified findings on the requested duty suspensions and reductions (AMCA, Sec.3). Based on this report, the Congress will consider a Miscellaneous Tariff Bill (MTB) that could authorize tariff relief for a period not exceeding 3 years, renewable if needed (AMCA, Sec.6). A report is submitted by the USITC not later than 12 months after the date of the enactment of a MTB on the effects on the United States economy of duty suspensions and reductions enacted pursuant to the AMCA, including a broad assessment on producers, purchasers, and consumers in the United States (AMCA, Sec.4).

With a closer look, it appears that the review process is built in four steps, and reflects the willingness to propose an open, transparent and effective tool.

In terms of openness, all domestic businesses can make their case in a first step. Large and small companies explain why they need manufacturing tax breaks to the independent, non-partisan International Trade Commission. The members of Congress, for their part, are not offered the possibility to launch an MTB process, thereby strengthening the confidence of domestic businesses in the procedures undertaken and measures that could be adopted (AMCA, Sec.2(a)(7)).

Analyzed from the perspective of transparency, the AMCA provides various guarantees for businesses. The Commission reviews the request, accepts comments from the American public, and reports to Congress with its recommendations. The final report shall be submitted to the appropriate congressional committees within a period not exceeding 12 months from the receipt of a petition for duty suspensions and reductions, along with the commission disclosure forms with respect to such duty suspensions and reductions (AMCA, Sec.3(b)(1)). The final report shall contain, among others, a determination of whether:

- The duty suspension or reduction can likely be administered by U.S. Customs and Border Protection;
- The estimated loss in revenue to the United States from the duty suspension or reduction does not exceed \$500,000 in a calendar year during which the duty suspension or reduction would be in effect; and
- The duty suspension or reduction is available to any person importing the article that is the subject of the duty suspension or reduction.

A petition for a duty suspension or reduction may be excluded from an MTB if it is the subject of an objection from a member of Congress, or it relates to an article for which there is domestic production (AMCA, Sec.3(3)(F)). Ultimately, the Congress examines the recommendations, eliminates any controversial provisions, and then votes on the package. While the Congress can exclude products from the final report, it cannot, however, add products that were not recommended by the USITC.

With regard to the effectiveness, it is worth mentioning that each proposed duty suspension or reduction is subject to a meticulous and non-partisan vetting process to ensure that no domestic producers of the affected product exist. The speed of the process and the fact that the exercise of functions under the AMCA is not subject to judicial review are other reflections of such a requirement (AMCA, Sec.6). The possibility to turn a temporary duty reduction or suspension into a permanent measure is also a major characteristic of the AMCA. The latter provides that the USITC shall append to its abovementioned final report recommendations with respect to domestic industry sectors or specific domestic industries that might benefit from permanent duty suspensions or

reductions, either through a unilateral action of the United States or through negotiations for reciprocal tariff agreements, with a particular focus on inequities created by tariff inversions.

Section II - The MTB Compliance with WTO Disciplines

While the benefits of the MTB could be numerous, the nature of the MTB mechanism may raise a number of questions concerning its validity with WTO disciplines, particularly from two points of view: to what extent the temporary reduction followed by an increase of tariffs give fullness to the principle of binding all negotiated tariff lines, a cardinal principle of WTO system? And does the reduction of tariffs on certain products constitute a "specific subsidy" in the meaning assigned to it by the WTO agreement on subsidies and countervailing measures?

With respect to the first issue, the tariff binding, under WTO rules, may be defined in the hypothesis when a State has undertaken a formal international commitment not to change a trade measure or concession in ways less favorable for other Members unless another form of compensation is agreed by the Members concerned. The increase of a customs duty is reprehensible only if it exceeds the threshold of consolidation. Below this threshold, any variation in tariffs falls within the discretionary customs policy of each Member, without violation of WTO commitments. In short, the MTB mechanism does not violate the bound tariffs negotiated under the aegis of the WTO.

As regards to the second issue, one should remind that the purpose of the SCM Agreement is the establishment of multilateral disciplines on the premise that some forms of government intervention distort international trade, or have the potential to distort it. It should be noted that the Agriculture Agreement contains its own disciplines with respect to the subsidization of agricultural products covered by that Agreement. SCM Agreement strengthens and improves GATT disciplines relating to the use of both subsidies and countervailing measures while recognizing the right of Members to impose such measures under certain conditions. Indeed, it provides detailed rules on the concepts of subsidization, actionable subsidies, and material injury/serious prejudice. It contains many procedural provisions that WTO Members, wishing to take countervailing duty action (the unilateral track), must comply with. It also provides provisions for attacking certain subsidies in the WTO (the multilateral track).

The concept of subsidy defined in [Article 1 of the SCM Agreement](#) captures situations in which something of economic value is transferred by a government to the advantage of a recipient. A subsidy is deemed to exist where two distinct elements are present: First, there must be a financial contribution by a government, or income or price support, and secondly, any financial contribution, or income or price support, must confer a benefit to the recipient.

Under the SCM Agreement, the subsidy has a very particular meaning and can take various forms, including:

- A direct transfer of funds (e.g., a grant, loan, or infusion of equity);
- A potential transfer of funds or liabilities (e.g., a loan guarantee);
- The purchase of goods, or the provision of goods or services (other than general infrastructure); or
- Foregone government revenue (e.g., a tax credit).

The latter category corresponds perfectly to the MTB mechanism and the temporary tariff reduction granted on certain products.

However, it is worth noting that, under the SCM Agreement, actions can only be taken against subsidies that are "specific." A specific subsidy is one that is only given to one company, or to a special group of companies. Such a condition is obviously not fulfilled in this case. Tariffs reduction granted on certain products do not target a particular sector, but rather adopt a transversal approach benefiting all companies that operate across the U.S. territory and use the concerned products in their production tools.

In the same vein, the MTB mechanism should not be defined as an « export subsidy » in the meaning of the SCM Agreement. A subsidy granted by a WTO Member government is prohibited *per se* if it is contingent, in law or in fact, on export performance, or on the use of domestic over imported goods. In this case, the MTB mechanism reduces the cost of production of manufacturing products, thereby favoring greater competitiveness on the export markets. But by no means, this mechanism subordinates or ties the support to the performance on foreign markets.

At the same time, the introduction of a similar mechanism within Arab legal frameworks would constitute an effective defense mechanism for handling the chronic low compliance by WTO Members with the obligation to notify subsidies to the WTO's Committee on Subsidies and Countervailing Measures pursuant to the SCM Agreement. Article 25 of the SCM Agreement provides for the obligation for WTO Members to notify any subsidy, as defined under Articles 1 and 2 of the Agreement, which is granted or maintained within their territories. Members shall submit subsidy notifications no later than 30 June of each year. However, the compliance with the obligation to notify subsidies "remains discouragingly low," what constitutes a "serious problem in the proper functioning of the WTO system" (WTO, news Item, 25 October 2016). For the Arab States, the prejudicial effect of this opacity would be magnified by the fact that they do not possess a wide range of raw materials and have to tackle unfair competition in local and foreign markets with subsidized industrial products, thereby lessening the competitiveness of their manufacturers on the global market.

Section III - The AMCA, a Blueprint for Economic Diversification and Growth in the Arab States

It is common to assert that the prevailing development model in Arab states is vulnerable. Arab countries are mostly centralized states with a dominant public sector and, with few exceptions, weak private enterprise. External revenues, whether derived from hydrocarbons, aid or remittances, profoundly shape the region's political economy (IMF, 2016). In many respects, the unfolding crisis in the MENA region is not just about the Arab State, its recurrent failures in redistributing, reforming and representing ordinary citizen's interests. It is also about the absence of private sector. A notable failure of the Arab world is indeed that it has been unsuccessful in developing a strong private sector that is connected with global markets, survives without state crutches and generates productive employment for its young.

How can one justify this situation?

Several reasons can be, in fact, put forward. First, there is a political problem, since a private sector can create income streams independent of the patronage network of the regime, thereby challenging the ruler's position. The outcome is that, with few exceptions, the private sector generally remains weak and dependent on state patronage; success in it is determined more by patronage than entrepreneurship. The limited economic opportunities that do exist are rationed by connection rather than competition.

Second, the absence of vibrant private sector is not only the failure of individual countries but also a regional failure. The Arab world's economic fragmentation into isolated geographic units further undermines the prospects for private sector development. Our region remains one of the most fragmented regions of the world in terms of production, trade, and economic linkages. Such fragmentation carries a heavy cost for the region's economy. For a private sector to survive and thrive, the size of the market matters. There is often a competitive threshold to industrialization. Fragmented markets prevent firms from realizing the benefits of producing for a bigger market and locating next to each other. These cost advantages, commonly termed as economies of scale and agglomeration, have fuelled trade and growth in emerging economies, but are simply absent in the Arab world. Any blueprint for private sector must, therefore, include as one of its central objectives the creation of regional economic commons in the Arab world.

The outcome is thus the notable failure of the Arab world to develop a private sector that is independent, competitive and integrated with global markets. With a public sector acting as the main avenue for job creation, the region suffers from a precarious employment and growth strategy and is left unprepared to deal with challenges such as globalization or demographic boom. This damning indictment has been recently reminded by the 2017 Index of Economic Freedom released by the US-based Heritage Foundation ranking in all three Arab states (UAE, Qatar, and Bahrain) in the top 50, with only Jordan and Morocco outside the Gulf region ranking in

the top 100 countries. Analyzing the economic policy development in 186 countries, the Index went as far as categorizing the majority of MENA economies as “mostly unfree.”

In any event, the recent crisis in the region provides an apt reminder that the prevailing development model has reached its expiry date. This model built on oil and aid fortunes, and a leviathan state, is fast becoming a political and economic liability. While the private sector has recently witnessed an impressive growth, especially in the Gulf, many questions are raised as how genuinely private is the private sector. The boundaries between the public and the private are notoriously blurred, with the result that the private sector sometimes operates as a disguised public sector, or simply an extension of the state. Public investment still remains the central driver of private economic activity, especially when oil prices are high.

Such a model has been politically expedient, but this temporary political bargain is becoming unsustainable. To tackle global economic pressures and social revolts, the Arab world needs a fundamental rethinking of the social and economic contract. While the state-business relationship may vary tremendously across the region, policymakers need to imagine a new paradigm that is based on a more competitive, entrepreneurial and inclusive private sector.

Mindful of this reality, Arab government have launched, since a decade, economic reforms based on non-hydrocarbons export and economic diversification. Given that GCC countries are high-income countries, the private sector will need to create high-paying-productivity jobs in high-value-added sectors to attract nationals. In contrast, other Arab economies have followed the development trajectory of emerging markets that have diversified their economy by developing low-cost manufacturing sectors (IMF, 2014).

Whatever approach is taken in this regard, it appears that non-oil output has increased considerably in the Arab States since 2000, but progress toward genuine output diversification has been modest. Export diversification and quality upgrading could be better emphasized in the Arab States.

In the regional context described above, the introduction of a mechanism inspired by the MTB within domestic legislation may constitute a high added-value. While notable variations exist across the MENA region, Arab governments have launched comprehensive national development plans with the goal to firmly promote sustainable development, reduce dependence on hydrocarbons and aid revenues, and increase private sector competitiveness. Economic diversification is considered to be an important stepping stone to achieving all three objectives.

To boost their economic diversification strategy, earlier arguments have demonstrated that the MTB may be used as a short-range mechanism as part of an overall strategic vision. Such a contribution is made all the more necessary by the weak competitiveness of Arab firms. With access to raw material and other products not available or insufficiently available on local markets, Arab firms would produce at a lower price, enabling them to reinvest their savings on research and development programs, and, as a result, to propose more competitive products in terms of price and sophistication, either locally or internationally. The MTB’s virtuous circle reaches its full scope through the preservation of local jobs and producers (GRISWOLD, 2010).

WTO litigations have recently put the spotlight back on the battle for access to certain raw materials needed to secure the competitiveness of local manufacturers. In October 2016, the EU and USA filed WTO panel requests against Chinese export restrictions on 12 raw materials, including antimony, chromium, cobalt, copper, graphite, indium, lead, magnesia, talc, tantalum, tin, and ferronickel. Such raw materials are key inputs into a wide range of high-value products in vital industrial sectors, including chemicals, oil & gas exploration, steel, water treatment, automotive, aerospace, telecoms networks, construction, and electronics. The EU and USA consider that China's export restrictions on raw materials undermine core principles of the multilateral trading system, as they discriminate against foreign users of these materials and provide substantial and unfair advantages to Chinese firms.

China’s position as a leading global producer of these raw materials means its export restraint measures give it the ability to affect global supply and pricing. The export duties China imposes provide substantial competitive

advantages for Chinese manufacturers by making them more expensive for U.S. or European manufacturers that rely on these raw materials to produce their downstream goods. These measures also can create substantial pressure on foreign producers to move their operations, jobs, and technologies to China.

For memory, it is noteworthy that in two previous WTO disputes (China – Measures Related to the Exportation of Various Raw Materials and China – Measures Relating to the Exportation of Rare Earths, Tungsten, and Molybdenum) the WTO found that China's imposition of export duties and export quotas on two different sets of raw materials was inconsistent with China's WTO commitments. In both cases, the WTO also confirmed that China could not justify its imposition of export duties not listed in the specific annex under Article XX of the GATT 1994, and rejected China's attempts to justify its imposition of export quotas as legitimate conservation or environmental protection measures.

In any event, such disputes and issues surrounding them are not rare. In many countries, raw materials are considered crucial to the domestic economy and essential to maintaining a high quality of life. Non-energy raw materials are linked to all industries across all supply chain stages. Technological progress and quality of life are also reliant on access to a growing number of raw materials. For example, a smartphone might contain up to 50 different kinds of metals, all of which help to give it its light weight and user-friendly small size. Moreover, improving the environment is closely linked to raw materials. They are irreplaceable in solar panels, wind turbines, electric vehicles, and energy-efficient lighting.

One better understands, in this context, why securing reliable and unhindered access to certain raw materials is a growing concern within, for example, the EU. To address this challenge, the European Commission has defined the so-called "EU Raw Materials Strategy" resting on two pillars: the commitment to pursue a "Raw Materials Diplomacy" by reaching out to non-EU countries through strategic partnerships and policy dialogues; and the creation of a list of Critical Raw Materials (CRM). CRM combines high economic importance to the EU with a high risk associated with their supply ([Report on Critical Raw Materials for the EU](#), 2013)

This situation calls for two observations. First, the EU policy and strategy for raw materials and industries related to raw material sharply contrasts with the absence of a long-range vision in most Arab States that do not make serious efforts to level playing field for Arab workers and manufacturers in order to grow their economy and support quality jobs. Second, Arab States are far from being amongst the main producers of raw materials across the world.

It was not surprising, in this respect, that some Arab States have submitted in the Doha multilateral negotiations a proposal eliminating tariffs and non-tariff barriers on raw materials from earth (such as primary aluminium) and from plant extraction, which are used and processed by manufacturing industries (for example, the United Arab Emirates, TN/MA/W/37, 2003 and TN/MA/W/37/Add.4, 2006). Meanwhile, there is clearly a need for comprehensive national strategies securing raw materials supply and facilitating access for domestic manufacturers to such products. For this purpose, the MTB may play a crucial role by cutting import tariffs, with a positive impact on the balance of payments and businesses input and competitiveness (GRISWOLD, 2010).

Section IV- Conclusion

The above discussion suggests, at least, three comments.

Ensuring secured and cheap supply of raw materials crucial for industrial development is still not a priority for Arab governments. This constitutes a major shortcoming of ongoing non-oil export and economic diversification strategies led by these countries.

In this context, the introduction of a tool inspired by the AMCA deserves immediate consideration. This may constitute a vital tool for MENA region competitiveness by lowering the cost of imported inputs and in some cases, finished goods, without harming domestic firms that produce competing products. Arab manufacturers, especially small and medium-sized companies, in industries ranging from agriculture and electronics to textiles, chemicals and beyond, see their costs go up for inputs not produced in the MENA Region, undermining Arab economies competitiveness and the ability of these companies to expand production, invest in new facilities and

retain manufacturing jobs. In short, few legislations would give Arab governments such a clear and fast opportunity to support local manufacturing industry.

At the same time, previous arguments have demonstrated that the adoption of a similar legal mechanism would constitute a strategic use of multilateral rules and consolidate the insertion of Arab States in the global economy. The MTB process unilaterally reduces trade barriers, without engaging protracted negotiations with other governments. The practice in the United States has indeed shown that Congress is able to cut tariffs to benefit American producers, and the economy at large, regardless of what other governments may choose to do.

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Impact of inflation on Unemployment in Sri Lanka: Perspective of Phillips Curve

Aruppillai Thayaparan¹, Muhandiram Mudiyanseelage Namal Muhandiram²

¹ Senior Lecturer, Vavuniya Campus, Vavuniya, Sri Lanka, aruppillaithayaparan@yahoo.com

² Undergraduate Student, Vavuniya Campus, Vavuniya, Sri Lanka

Abstract

The aim of this study is to identify the impact of inflation on unemployment in Sri Lanka over the period 1990 - 2016 through the perspective of Phillips curve. For this purpose, the annual time series data for the above period were collected from central bank report in 2016. To achieve the objective, the inflation rate which represents by wage price index was considered as the dependent variable, and the unemployment rate was used as independent variable in the study. The collected data were analyzed using simple linear regression model and reciprocal model which represents the Phillips curve. Results of the coefficient of correlation in linear regression model suggest that inflation and unemployment have 87.5% of negative correlations among them while the model reveals that rate of inflation has a negative impact on unemployment in the country. Results of reciprocal model confirmed the concept of Phillips curve, and it has found that even if the unemployment rate increases indefinitely, the percentage decrease in wage price index floor will not be more than 12.23 percent per year and the results are statistically significant at 1% level. Also, the above model proves that Sri Lanka has attained a 20.8% of the natural growth rate of unemployment which is higher than under linear model while adjusted R² is 0.93 in reciprocal model shows that compared to the linear model, the reciprocal model is the best-fitted one to measure the strength of the above two variables. Findings of the study may help the policymakers in formulating the policies to minimize the harmful consequences of inflation and level of unemployment in Sri Lanka.

Keywords: Inflation Rate, Phillips Curve, Natural Rate of Unemployment, Reciprocal Model.

Introduction

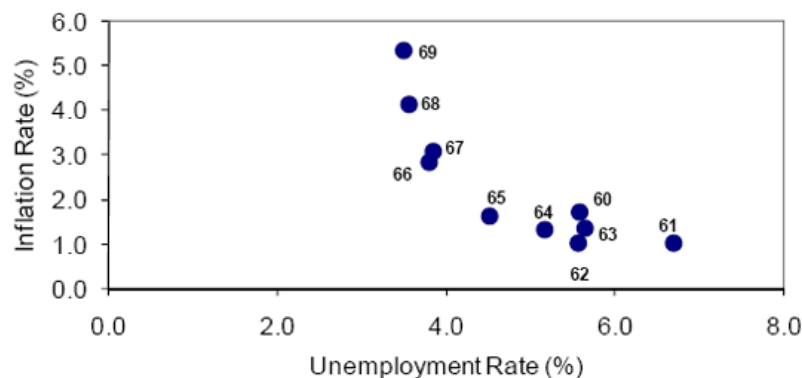
At present modern central banking practices mainly focusing on maintaining the economic and price stability is one of the main objectives of Central Bank of Sri Lanka. In this background, unemployment and inflation are the main macroeconomic concepts which are influencing the all economic aspects of a country. Inflation means that a continued increase in the general price level in an economy and nowadays it is measured by using price indices such as gross domestic product deflator, producer price index, consumer price index and wage price index. In case of Sri Lanka, wage price index and Colombo consumer price index are widely using in the calculation of inflation. Inflation, as measured by the consumer price index, reflects the annual percentage change in the cost to the average consumer of acquiring a basket of goods and services that may be fixed or changed at specified intervals, such as yearly. It is an indicator to measure the changes in the general level of consumer prices and used as one of the key indicators of inflation. Similarly, the wage price index is a price index which measures changes over time in wages and salaries for employee jobs, unaffected by changes in the quality or quantity of work performed. Changes in wages and salaries resulting from changes in the composition of the labor market are excluded from the wage price index movements. In 2017, the inflation rate for Sri Lanka was 6 %. Though

Sri Lanka inflation rate fluctuated substantially in recent years, it tended to decrease through 1998 - 2017 period ending at 6 % in 2017.

Unemployment refers to that, people who were not employed but willing to be employed and who were seeking a job. The unemployment rate decreased to 4.4 percent in 2016 from 4.7 percent recorded in 2015. During 2016, the total labour force has grown by 1.2 percent, while a decline of 5.4 percent was recorded in the unemployed population, reflecting an increase in employment opportunities in the economy during 2016 compared to 2015. In theoretical point of view, in short run, there is an inverse relationship exist between inflation and unemployment. An increase in inflation leads to decrease in unemployment, and a decrease in inflation leads to decrease in unemployment which represents the trade-off between the above variables explained by Phillips curve in the short run.

Phillips Curve

A.W. Phillips was one of the first economists to present compelling evidence of the inverse relationship between unemployment and wage inflation. Phillips studied the relationship between unemployment and the rate of change of wages in the United Kingdom over a period of almost a full century (1861-1957), and discovered that the latter could be explained by (a) the level of unemployment, and (b) the rate of change of unemployment.



Phillips hypothesized that when demand for labor is high, and there are few unemployed workers, employers can be expected to bid wages up quite rapidly. However, when demand for labor is low, and unemployment is high, workers are reluctant to accept lower wages than the prevailing rate, and as a result, wage rates fall very slowly. A second factor that affects wage rate changes is the rate of change of unemployment. If the business is booming, employers will bid more vigorously for workers, which means demand for labor is increasing at a fast pace (i.e., percentage unemployment is decreasing rapidly), than they would if demand for labor is either not increasing (i.e., percentage unemployment is unchanging) or is only increasing at a slow pace. Since wages and salaries are a major input cost for companies, rising wages should lead to higher prices for products and services in an economy, ultimately pushing the overall inflation rate higher. As a result, Phillips graphed the relationship between general price inflation and unemployment, rather than wage inflation. The graph is known today as the Phillips curve. (Elvis Picardo, 2018). In this background, this paper examines the impact of inflation on unemployment in Sri Lanka using the concept of Phillips curve.

Objective of the study

The objectives of this study are to identify the impact of inflation on unemployment in Sri Lanka through the perspective of Phillips curve and to estimate the correlation between the unemployment and inflation rates in Sri Lanka. For this purpose, annual time series data from 1990- 2016 were collected from central bank report in 2016.

Literature Review

There are a number of researchers have carried out the research based on this topic in many countries using various statistical and econometrics techniques in their studies. Sagar Katria et al. (2011) examined the trade-off between inflation and unemployment using unbalanced annual panel data of 8 SAARC members for the period 1980-2010 from the perspective of Phillips curve. Their study has found that there is a negative relationship between inflation and unemployment rate in the SAARC countries and proved the concept of Phillips curve hold in the member countries.

Another study was done by Mohammed Ziaul Haider, Champa Bati Dutta (2012) on Inflation-Unemployment Trade-off: Evidence from Bangladesh Economy and their results showed that inflation lag, which is positively associated with inflation, strongly explains the current inflation dynamics. The other influencing factors, such as unemployment gap and change in exchange rate, are negatively correlated, and change in the international price of crude oil is positively correlated with inflation.

Muhammad Umair and Raza Ullah (2013) have examined the impact of gross domestic product and inflation on the unemployment rate in Pakistan over the period 2000-2010. Their findings of the study showed that inflation insignificantly influences GDP and unemployment and the correlation is negative. Thus, they concluded that inflation has a role which influential but for GDP and unemployment with insignificant levels in the macroeconomic factors of the Pakistani economy. The relationship between inflation and unemployment in Nigeria was evaluated by Kayode Bamidele Adebawale (2015) for period 1977 – 2013 by the usage of Phillips curve and he has found that there is a negative relationship between inflation and unemployment rates in Nigeria.

Dolly Singh (2016) has analyzed the trade-off between inflation and unemployment in the short run in the Indian economy over the period 2009-2015. His findings proved that inflation has a negative effect on unemployment while it has a positive effect on the real gross domestic product (GDP) in the country. Another research has done by Mohamed Aslam (2017) on the nexus between unemployment and inflation in Sri Lanka using annual time series data from 1959 to 2015. His results confirmed that the Phillips concept of the relationship between the inflation and the unemployment rates and reveals that there was an inverse relationship among the unemployment and the inflation rates in Sri Lanka during the above study periods.

Fejzi Kolaneci, Brunilda Hoxhalli (2016), examined the statistical analysis of the relation between inflation and unemployment in democratic states using Spearman's correlation coefficient with application in Albania. Their findings proved that indicates a weak positive correlation between inflation and unemployment in Albania during the period from January 2005 to December 2014. Phillips curve and inflation in India has examined by Sahu Kabita Kumari (2017) from 1991 to 2015, and the results revealed that the Pearson's coefficient matrix between inflation and unemployment is -0.02 implies that there was a negative relationship between them.

Methods of data analysis

To analyze the impact of inflation on unemployment in Sri Lanka, secondary data were collected for the period 1990- 2016 from central bank report in 2016. The collected data were analyzed using econometrics analysis such as correlation, simple linear regression, and reciprocal models and the dependent variable is the inflation rate which measured by wage price index and unemployment rate considered as an independent variable in the study.

Correlation analysis

Correlation analysis is the basic statistical technique to measure the strength of the variables and based on that can identify the correlation among them.

Simple regression model

A simple linear regression model was applied to identify the impact of inflation on unemployment in Sri Lanka, and it can be expressed as:

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon$$

Where,

Y = Inflation rate measured by wage price index

β_0 = Intercept term

β_1 = Coefficient of X_1

X_1 = Unemployment rate

ε = Error term

Reciprocal model

Based on the theoretical point of view, there is a trade-off between rate of inflation and unemployment which represents by Phillips curve. Compare with the linear regression model, the reciprocal model is more appropriate, and thus reciprocal model also employed in the study. The model can be shown as:

$$Y = \beta_0 + \beta_1 (1/X_1) + \varepsilon$$

The meaning of each variable is the same as mentioned above.

Results and Discussions

The strength of the variables namely rate of inflation and unemployment were measured using correlation analysis, and the results display in the following table.

Table 1: Results of correlation analysis

Item		Unemployment Rate	Wage price index
Unemployment rate	Pearson Correlation	1	-.875**
	Sig. (2-tailed)		.000
	N	27	27
Wage price index	Pearson Correlation	-.875**	1
	Sig. (2-tailed)	.000	
	N	27	27

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

Source: Estimated by authors

The above results show that there is 87.5% of negative correlation exists among unemployment rate and wage price index and they were statistically significant at 1% level.

It shows that, as unemployment rises, the rate of inflation will decline in the economy of Sri Lanka.

The impact of inflation on unemployment has analyzed by simple linear regression model, and its results were shown in table 2.

Table 2: Results of simple regression analysis

Variable	Unstandardized coefficients		Standardized coefficients	t	Significant
	β	Std. Error	Beta		
Constant	5609.96	384.42		14.5	.000**
Unemployment rate	-378.90	41.912	-.875	-9.04	.000**

** represents the significant levels at 1%.

Source: Calculated by authors

According to the above results, it proved the inverse relationship among the above two variables and inflation has a statistically significant impact on unemployment in Sri Lanka. As wage price index increases by one percentage, the unemployment rate will reduce by 378.90 percent and at zero percentage of inflation, there is 14.8% of unemployment which is called as the natural rate of unemployment attained in Sri Lanka.

Based on the concept of Phillips curve, the reciprocal model is more appropriate than the linear model, and thus, the above variables were estimated using reciprocal model. The estimated results of the model are given below:

Table 3: Estimated results of the reciprocal model

Variable	Unstandardized coefficients		Standardized coefficients	t	Significant
	β	Std. Error	Beta		
Constant	-12.23	198.61		-6.15	.000**
Unemployment	25549.53	1286.94	.970	19.85	.000**

** represents the significant levels at 1%.

Source: Calculated by authors

The above results reveal that there is an inverse relationship between inflation and unemployment and the impact of inflation on unemployment has statistically significant at 1% level. Further, the above model confirmed the concept of Phillips curve where the trade-off is existing between the variables. In the above model, as unemployment(X_1) increases an inverse of unemployment ($1/X_1$) approaches zero and inflation(Y) the limiting value of β_1 . Based on this, the above results show that the wage price index floor is 12.23% and an unemployment rate increases indefinitely, the percentage decrease in wage price index will not be more than 12.23percent per year. According to this model, Sri Lanka has achieved 20.8% of the natural growth rate of unemployment which is higher than under linear model indicates that due to structural or frictional even at zero rate of wage inflation there is 20.8 % of unemployment exist in Sri Lanka during the sample period.

Impact of inflation on unemployment was estimated by using both simple linear regression and reciprocal models. However, the reciprocal model is more related to Phillips curve than the linear model in explaining inverse relations each other. Comparing adjusted R^2 in both models, reciprocal is better fitted one than the linear model.

Table 4: Results of adjusted R^2

Model	R	R^2	Adjusted R^2	Standard error of the estimate.
Linear	0.87	0.76	0.75	787.40
Reciprocal	0.97	0.94	0.93	397.34

Source: Calculated by authors

In the linear model, adjusted R^2 is 0.75 refers that 75% of the variation in inflation rate explained by unemployment rate while based on the reciprocal model, adjusted R^2 is 0.93 refers that 93% of the variation in inflation rate explained by the unemployment rate. Thus, the reciprocal model which has the highest value of adjusted R^2 proved that it is the best-fitted model compared to linear model to measure the goodness fit in the data.

Conclusion

This paper has estimated the simple linear regression and reciprocal models by using annual time series data from 1990- 2016 in the economy of Sri Lanka. Estimated results of simple linear regression show a negative relationship between inflation and unemployment rates and changes in unemployment rates significantly affect inflation rates in the economy. Also, the estimated coefficient on the unemployment rates is significantly different from zero shows that there is a trade-off exists in the country. Compared to the linear regression model,

the reciprocal model is best-fitted one refers that, the trade-off between inflation and unemployment and the concept of Phillips curve have more fit than liner model. Based on the reciprocal regression outcomes, it was confirmed that there was short-run Phillips' concept exists in the economy of Sri Lanka too. Findings of this study may assist to policymakers who are engaging in the economic development of the country, they have to consider the Phillips concept when they design the new policies and strategies to uplift the Sri Lankan economy in future.

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Study on the Pricing Model of Affordable Housing in Guangzhou, China

Qiqi Zhang¹, Kongmei Cen², Mu Zhang³

¹ Public Management School, Jinan University, Guangzhou, China. Email: zhangqq@stu2016.jnu.edu.cn

² Public Management School, Jinan University, Guangzhou, China, Email: 15501836593@qq.com

³ Shenzhen Tourism School, Jinan University, Shenzhen, China, Email: zhangmu@163.com

Abstract

Indemnificatory housing is related to our life in China, how to make price reasonable is necessary for its social welfare function. This paper introduces the pricing process of affordable housing and focuses on the demonstration of price-limited housing which is both indemnificatory and commercial. Combined with the cost method and the market method, the pricing model was constructed based on the system: market valuation price--the ratio of house price ---selling price. Taking Guangzhou-- a city in south China-- as the object, the key --price ratio- was calculated according to the data. Reasonable of that model was examined with an example of a house in Guangzhou, China, named FengJingHuaTing. With the expansion of the government welfare project, the study of the pricing model of the purchase type of indemnificatory housing is of great value to the citizens and market.

Keywords: Affordable housing; Pricing Model; Price Ratio.

1. Introduction

1.1 Background of Affordable housing in China

Housing is one of the most basic necessities of life. Under the conflict between growing demand for material and culture and the rising price of housing, any citizen has the right and need to reach a "housing" level. Therefore, the Chinese government is paying more and more attention to the construction of affordable housing. Building affordable housing system and reasonable pricing are the keys to the effective implementation of affordable housing policy. The affordable housing in which the government invest or raise money to construct, sold or rented with limited standards and prices to eligible families and single residents with housing difficulties, consists of low rent housing, public rental housing, affordable housing, limited housing, limited commodity housing and so on (Wang, D.X., Peng, H. C, 2013).

In 1998, the housing system was reformed in China. The welfare housing system was replaced by a new market-oriented system, and housing commercialization, monetization, and socialization were gradually implemented. The market reform promoted the rapid development of the real estate industry, but the market cannot effectively solve the housing problem of the middle and low-income stratum, unless with the aid of the national policy. In order to solve this housing problem, the housing security system was gradually established in China: high and

middle-income people are satisfied by the market; provide affordable and limited housing to the middle and low-income people; the lowest income people have access to the low rent housing and the public rental housing (Huang, G.Y, 2009). The construction of affordable housing and reasonable pricing play an indispensable role in the healthy development of China's real estate market.

However, in the exploratory stage of housing system reform in China, the pricing model isn't mature. For example, economically affordable housing lost its price advantage in 2008 due to a small difference from ordinary commercial housing prices in Guangzhou, China, as well as limited housing.

Affordable housing is an important government project. Only with a reasonable price and policy, can it play its role well. Only by establishing a stable and reasonable housing security system can the housing problem of middle and low-income families be solved. At the same time, it also plays an important role in adjusting the structure of the real estate market, restraining unreasonably rising price, driving the development of the related industries.

1.2 The pricing mechanism of affordable housing in developed areas

The government of Singapore has made great efforts to develop public housing. At present, 87.6% of the residents live in the group house, of which 93% of the residents have the property rights of their houses, and the coverage of their affordable housing is very high. The pricing principle is that 90% of households can afford three-bedroom public housing, and 70% can afford four-bedroom public housing. The pricing method has gone through these stages: construction cost pricing, construction cost and land cost pricing, construction cost and land market price pricing, construction cost and resale price pricing, and the median price of the house price. In practice, not only the market price is considered, but also the income level of different income strata is under consideration. Different types of discounts are given to different types, such as the discount rate of the three-bedroom house is about 44%, four-bedroom house is 33%, and the five-bedroom house is about 27% (Gong, S.H,1997). At present, the pricing of public housing in Singapore is the market pricing method based on the income level, together with housing fund system. The goal of "home ownership" is difficult to achieve at this stage in China (Teo E A L, Lin G, 2011)

There are two types of affordable housing in Hongkong. One is for rent, and another is for sale. Their application is restricted by income level and asset status. Because of the relatively perfect income statistics system in Hongkong, its price formulation is mainly reference income. The construction cost of housing is between 1/3 and 2/3 of the market price, the proportion of mortgage and income is less than 40. There is also effective access and exit mechanism in Hongkong. Applicants can only rent or buy an affordable house one time. Public rental rights cannot be automatically transmitted from generation to generation. People who want to transfer their houses within two years after purchasing the house must be transferred to the government. Three years later, the object of the transfer should be eligible. Five years later it is free to sell if the price difference is refunded. Due to the fact that the income level of China's residents is stratified and the income statistics system is weak, it is difficult to implement the cost-oriented pricing model. However, we can draw on the strict access and exit mechanism of Hongkong to ensure that the price of the affordable housing is maintained at a reasonable level (Ho M H C, 2004).

Security type housing in Macao is divided into social housing and economic housing. The former is mainly used for rental. It is built or invested by the government and rented to a low-income resident with low price, which is charitable. The latter is mainly for sale, invested directly by the government, for the low - and middle - income groups that are not able to buy commercial housing and are not qualified to apply for social housing. The lower and upper limit of income and the upper limit of net assets are listed below.

Table 1 Restrictions on Economic Housing Applications in Macao

Number of family members	Monthly income lower limit (RMB)	Monthly income upper limit9RMB)	Upper limit of net assets (RMB)
one	7820	22240	672168
Tow and more	12210	44479	1344336

Data sources : Macao Special Administrative Region, law 10/2011, economic Housing Act

In terms of pricing, the price of the economic housing is not linked to the market price but is calculated by the capacity of the eligible households. On the basis of the comprehensive consideration of the location, age, the direction of the unit, the area and so on, the residents' income is the main factor in Macao.

It can be seen that in Hongkong, Macao, and Singapore, government all attach great importance to the income level of the insured. In the process of pricing, it takes full account of the different proportion of houses with different income levels (Adrienne La Grange, 1998). It is worth learning in the Chinese mainland. However, it needs improvement of relevant supporting income and property credit system, which is relatively weak at present, and it does not meet the fact of a large population in China. In developed areas, many residents don't have property but are long tenants, which helps to reduce the burden of housing (Zhou, K.L., 2014). In China, the right to protect housing should be highlighted, not the property rights of the housing.

2. Literature review

The housing system reform in China began just twenty years ago. it constantly needs to learn from all kinds of experience and draw lessons from other countries and regions to improve itself. According to the property difference, the system of affordable housing is divided into two types: for purchase and lease. With the increasing popularity of the real estate market in China, the land and house are very expensive in some cities. because of the particularity of affordable housing, the pricing method is more complex and cautious than the ordinary commodity housing, which is worthy of our attention and active exploration. The purchase of affordable housing in China is indispensable (Yifu Lin, 2008; Xiao Bi Qing, 2011), the government's policy of affordable housing will not cause a downturn in the real estate market, instead of helping the middle and low-income people to own their own housing (Yifu Lin, 2008).

Wu Jianfeng (2012) emphasizes that the rising price of the guaranteed commodity house is changing with the increasement of residents' income. Bai Baoping (2014) had a research on price structure of guarantee commodity house, taking the affordable housing as the representative, comparing it with the ordinary commercial housing. At the same time, he compared the Chinese affordable housing with the public housing in the United States and finds the problems existing in China, and some suggestions and countermeasures were put forward to alleviate the contradictions and problems in the pricing link at the present stage.

For the pricing model, Li Gefei(2007) used the method of weight mean for the price of the limited-price housing in Zhengzhou, Henan for the first time. According to two calculation method: "80% of commodity housing that is the same type at the same area, in the same period" and "the development technology, the management cost plus the profit of 8% to 10%", the two prices were calculated respectively. Then the weight average method was used, and the price of the limited-price house was obtained. Zhang Hongyan (2009) measured the benchmark house price from the angle of income and similar housing rental price. The government should adopt the indirect price control method, introduce the developer competition mechanism to decide the highest price, and increases its price elasticity.

Lai Junyu and Peng Haicheng (2014), based on the research on the pricing mechanism of the guaranteed commodity houses in Chongqing and Xi'an, put forward the price scheme based on the index of the proportion of capital and assets, the rate of return on investment and the net interest rate, so as to get reasonable profit. It can be seen that affordable housing is still marketable, and profitability is one of the considerations.

Li Yingying (2011) studied and analyzed the pricing mechanism by using the method of load measurement, cost calculation and market price measurement, and discussed the price problem of the guarantee type commercial housing under different pricing methods. It is suggested that the government should use three methods in combination and determine a cost-effective project. She combined cost, market, and income comprehensively, reduced unreasonable factors, which is in line with China's reality. Gu Zhengxin, Nie Qibo and Wu Xianghua (2010) mainly discussed the pricing mechanism of the affordable housing from the perspective of common property rights. They pointed out that the pricing should start with the two angles: price composition of the building and the disposable income of the middle and low-income people, we must take full consideration to the real purchasing ability, so as it can play its real role.

Therefore, it is one of the reasonable ways to combine a variety of pricing methods. Scholars often use one or combination of multiple models according to the characteristics of the study area to choose pricing model. Cheng Guoqiang (2010) and Zhang Hongyan (2009) are mainly analyzed from the angle of income, while Li Gefei (2007) discussed a model of market and cost pricing, and Gu Zhengxin (2010) combined the two modes of cost and income. Li Yingying suggested that cost, income, and market should be all put into consideration. The building cost is relatively static and easy to obtain, but the market factor is very different. This paper is based on the cost method, taking the price of the regional market as the reference and adjustment factor, that is, combining the cost method with the market method.

3. The theoretical basis and research design of the affordable housing pricing

3.1. The principle of affordable housing pricing

According to the pricing practice at home and abroad, there are three main pricing models for affordable housing: income pricing, cost pricing, and market pricing, related to eligible applicants' income method, the construction cost plus profit method and the market price percentage method. The three pricing models have its own advantages and emphasis (Chen, A.M, 2006. Wang, D. X., Peng, H. C, Ye, X.Q., 2014).

(1) Income pricing method

The main factor of this model is to guarantee the ability to pay for the income and assets of the object. At present, the scholars mainly discuss these aspects: the proportion of housing expenditure to household income, when all the rest is used for housing expenditure. after the basic non-housing budget is deducted. The proportion of the data is generally based on experience, and also takes into account the specific applicant's capacity to benefit low-income people more fairly. Generally speaking, the methods of income evaluation-index include housing price-income ratio, housing consumption-income ratio, and residual income method. However, it is difficult to collect the real and effective property information of the applicant because of the imperfect revenue and property requesting system at the present stage in China, so it is not ideal to some extent. Moreover, income pricing cannot reflect the value difference of affordable housing in different locations, which is not conducive to the supply balance of the market(Fang, L.J., 2010).

(2) Market pricing method

This method is a market comparison way based on the theory of Marshall equilibrium value theory. In general, it is necessary to find a price of the reference object and make an adjustment, which is widely used in the evaluation of many different types of assets (Wang, X.Z., 2008). Here, it is presented as "the market price percentage method," which is based on the rent or price of the commercial housing market at the same time point, the same location, the same quality, and then make "discounts." The train of thought is the price of the target = $\{\sum \text{price of reference} \times \text{Price adjustment coefficient}\} / n$. However, the proportion of discounts needs to be accurate, not too high or too low, and we should avoid unifying "discounts" in the way of "one size fits all" in order to ensure the welfare equity (Xiao, B.Q., 2012. Zhang, Y.,2010).

(3) Cost pricing method

This model takes the construction costs and operating costs of affordable housing into account. Like the ordinary commercial housing, the price of the affordable housing is generally composed of six parts: the land acquisition cost, the development cost, the management cost, the capital cost, the tax, the profit. The affordable housing is a public product with welfare, its land cost and related tax and fee are reduced by the government, and the construction cost is also stipulated by the government not to exceed 3000 yuan per square meter (Huang, N.S., 2011), including construction, installation, supporting investment, greening transformation, capital interest, and other costs. Therefore, the cost-oriented pricing model is mainly concerned with two factors: its construction cost and operation cost (He, Y.B. 2010. Liu, Z.Y. 2013).

3.2 Pricing model design

In this paper, the cost market pricing method is combined with the market method. Under the premise of unifying average profit rate, the price ratio of the purchase type housing price and the same level of ordinary commercial housing is determined by mathematical deduction. The price of the affordable housing is corrected by the ratio. The ratio of prices is the core (Ma, Q. 2006).

According to the principle of cost accounting, the house price is composed of land price cost, construction cost, profit and reasonable tax. Although the absolute value of the elements of the affordable housing and ordinary commercial housing is different, in proportion, the construction cost, the profit rate, and the tax are relatively stable, only the cost of land is unstable. In other words, the ratio of the affordable housing to the ordinary commodity housing is mainly influenced by the land price ratio, the construction cost ratio, the profit ratio, and the rate ratio, while for all the affordable housing, the others are stable except the land price ratio.

Therefore, the cost--market pricing model has the hypothesis: the cost difference between the affordable housing and commercial housing is mainly land price. The reasons for this hypothesis are that the policy preferences are mainly reflected in the land price; secondly, for the same developer, On the premise of stable construction technology and management level, there is no significant difference between the construction cost of the two. In terms of financial cost, the financing rates of both are basically the same, but the interest cost is different because of the distinct land cost. We believe that it is theoretically feasible to deduce the price ratio through land price. In addition, since the variables need to be quantified, the model has some effective time points and needs to be adjusted in time with the changes in the social tax policy, the financial policy and the cost of construction (Qiang, Z., Xia.S.L., 2009).

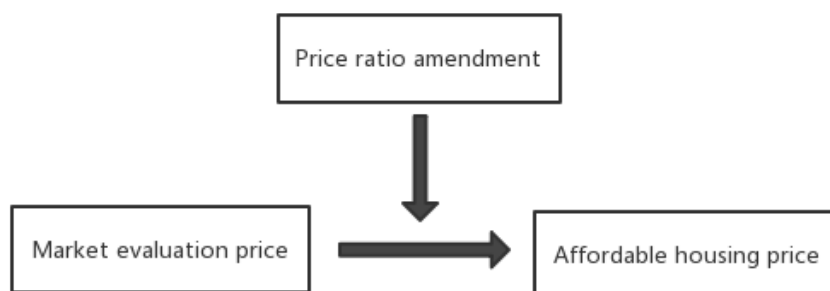


Figure 1: the calculation model of the cost market method

The following steps are needed when using cost - market method

- (1) Calculate the profit ratio with safety interest rate plus risk-adjusted value method
- (2) Based on the cost method, derive the relationship between the price ratio and other factors, and assign it.
- (3) Bring the number into the formula calculation and get the price.

According to the valuation theory, the prices of both are roughly calculated with land price, construction cost, profit rate and tax rate, and then ratio of the two are calculated. Analyze which variables will affect its value (Sun, W.Z., 2007).

Taking a house whose development period is 3 years as example, according to the theory of prices composition, the relationship between affordable housing price p_{gf} , land price p_{gd} and the commercial housing price p_{sf} , land price p_{sd} , the construction cost C , the interest rate R , the tax rate T and the profit margin R is as follows.

$$p_{gf} = p_{gd}(1 + 3r + 3R_g) + c_g(1 + 3r) + T_g p_{gf}$$

$$p_{sf} = p_{sd}(1 + 3r + 3R_s) + c_s(1 + 3r) + T_s p_{sf}$$

Simply deformed :

$$\frac{p_{gf}}{p_{sf}} = \frac{1-T_s}{1-T_g} \times \frac{p_{gd}(1+3r+3R_g)+c_g(1+3r)}{p_{sd}(1+3r+3R_s)+c_s(1+3r)} \quad (3.1)$$

$$= \frac{1-T_s}{1-T_g} \times \frac{p_{gd}}{p_{sd}} \times \frac{(1+3r+3R_g) + \frac{c_g(1+3r)}{p_{gd}}}{(1+3r+3R_s) + \frac{c_s(1+3r)}{p_{sd}}}$$

$$= \frac{1-T_s}{1-T_g} \times \frac{p_{gd}}{p_{sd}} \times \frac{(1+3r+3R_g)}{(1+3r+3R_s)} \times \frac{1 + \frac{c_g(1+3r)}{p_{gd}(1+3r+3R_g)}}{1 + \frac{c_s(1+3r)}{p_{sd}(1+3r+3R_s)}} \quad (3.2)$$

According to (3.2), the house price ratio $\frac{p_{gf}}{p_{sf}}$ is affected by land price ratio $\frac{p_{gd}}{p_{sd}}$, profit and interest ratio $\frac{(1+3r+3R_g)}{(1+3r+3R_s)}$ and the proportion of construction cost to the total cost. For the different house, except corresponding market housing price and land cost, other factors are relatively stable. So, the ratio of house prices is mainly influenced by the market price and the land price coefficient, and different housing has different price ratio (Zhang, Y., 2011).

4. Analysis and Verification

4.1 Research object

There are two types of affordable housing: for rent or sale. This article mainly discusses the pricing model of the sale type housing. Economical housing and limited price housing are two typical and main types of affordable housing.

(1) Economical housing in Guangzhou has three forms: some are developed by municipal housing security office, some are transformed from the stock public house, and others are constructed by the enterprise. In these three forms, the first kind belongs to the construction of the direct organization of the municipal government. According to the regulations, there is no profit and is sold at the cost price. The second kind is the stock public housing. According to the "notice on the problem of selling the stock of the public housing," the stock public housing is that has clear property, managed by relevant enterprise and institution in the administrative area of Guangzhou, China. Stock public housing is sold at a market valuation price with. Therefore, the two forms of affordable housing do not have a land transfer, nor do their price need to be discussed. The third is that the developers get the land through the allocation and sell at a profit rate of no more than 3%. Here there is no land leasing, so we don't know the cost of land price. this type of affordable housing doesn't involve land pricing, and the cost structure is relatively simple. Therefore, we only introduce the cost and pricing structure of economical housing and do not build and analyze the model for it.

(2) Price limited commodity house, based on the limited set type and limited price, is commercial and welfare whose developer is determined by bidding. It is aimed at those who are unable to buy the ordinary commercial housing and do not meet the conditions of the economic housing. The purchasers have limited property rights. Price limited commercial housing has the market attribute and research value. Therefore, the

price limited commercial housing is the model establishment and the empirical research object.

4.2 Data sources and value

Data are from Guangzhou land resources and Housing Authority, YangGuangJiaYUan website, Guangzhou Yearbook, China construction cost information network and so on.

The core of the cost- market pricing method is price ratio table. According to formula 3.1, we can calculate the price ratio of each specific value, including the following definitions of the tax rate, profit rate, construction cost and so on.

(1) Land cost.

The land cost includes the land price paid for the land acquisition and the interest. The economical housing is usually allocated land, and the land use right can be obtained by paying little or no land grant F or limited price housing, the land is obtained through a transfer with lower price compared with ordinary commercial housing.

(2) Construction cost. It includes the cost of design, the cost of construction, installation, equipment, infrastructure construction and public facilities, management and interest, etc. There are detailed provisions for each item in "technical guidelines for the construction of affordable housing projects in Guangzhou, China." We take the small high-rise housing whose development period is three years as an example. According to the construction cost information network of China, the average construction cost of the small high-rise buildings in Guangzhou is 1881 RMB /m² in 2015. In order to guarantee the lower sale price, the guarantee type housing will use the building materials with sufficient supply and relatively low price on the premise of ensuring structural safety and functional use. The design of the structure is mainly practical, the function is clear, and the unit is relatively simple (Huang Rudong, 2001). Therefore, the construction cost is slightly lower, and here is 1500RMB /m².

(3) Tax. According to the relevant tax regulation, tax includes the business tax, the urban construction, and maintenance tax, the additional education fee and the stamp tax, the tax rate is 5.65% (Ye Xianquan, 2014). However, it involves a lot of specific tax items and tax rates in the specific operation process, real estate development, sale, transaction process. the economic housing, low rent housing and public rental housing will be exempted from all administrative fees and government funds, according to the "notice on the practical implementation of the administrative charges and the policy of exemption of government funds in Guangzhou.". For limited price housing, preferential items are relatively few, and there is no clear tax and preferential regulations. The tax rate cannot be calculated accurately in the two reasons. We suppose T_g and T_s are the same value. But the proportion of tax and fee is still a very important factor for other types of affordable housing (Wang, Y.G., 2008)

(4) Profit. "The management of economical housing in Guangzhou" stipulates that the price should be based on the principle of maintaining a small profit. The profit rate of the economic housing project implemented by the real estate development enterprise is not higher than 3%. The economical housing directly organized by the government must be sold at cost without profit. The profit rate of the limited price room is also different in different areas (Ma, X.Y., Yuan, Q.F., Zhao, J.). The rate of return is determined according to the safety interest rate plus risk adjustment value method. The safety interest rate is 4.75% for the three-year commercial loan interest rate of the central bank, and the risk value of the housing lease is 3%. We suppose the profit rate is 7.75%. The actual profit rate of ordinary commercial housing is very different in different urban projects. In 2012, Shaanxi Province issued a policy to measure the cost of housing projects in different regions, announce the range of regional housing sales price, and control the profit of real estate around 10%. Commercial housing beyond the price range will not be recorded in the price department, nor can it get the pre-sale certificate. But in fact, the profit rate is diverse. For example, the gross interest rate of Vanke 2015 is 19.46%. (Data source: Vanke 2015 Annual Report) Therefore, in the theoretical calculation, we take 10%.

- (5) Interest. The annual interest rate for three years is 4.75%.

4.3 Price ratio table

The above values are assigned to (3.1), and the following results are obtained:

$$\frac{p_{gf}}{p_{sf}} = \frac{(1+3 \times 4.75\% + 3 \times 7.75\%)p_{gd} + 1500 \times (1+4.75\% \times 3)}{(1+3 \times 4.75\% + 3 \times 10\%)p_{sd} + 1881(1+4.75\% \times 3)}$$

$$= \frac{1.375p_{gd} + 1713.75}{1.4425p_{sd} + 2149}$$

Because the price limit room of Guangzhou is common in 2008-2011 years, the price of the limited price housing and the commodity house is given as an example, and the price ratio of the two can be calculated combined with the benchmark price map of the residential land in 2009. Thus, the estimated price of the Limited price room is obtained.

Table 2 Price ratio table

地价 (元)	1000	2000	3000	4000	5000	6000	7000	8000	9000
700	0.74	0.52	0.40	0.32	0.27	0.23	0.21	0.18	0.17
1000	0.87	0.60	0.46	0.38	0.32	0.27	0.24	0.21	0.19
1300	/	0.69	0.53	0.43	0.36	0.31	0.27	0.24	0.22
1600	/	0.78	0.60	0.48	0.41	0.35	0.31	0.28	0.25
1900	/	0.86	0.66	0.54	0.45	0.39	0.34	0.31	0.28
2100	/	/	0.71	0.57	0.48	0.42	0.37	0.33	0.30
2400	/	/	0.77	0.63	0.53	0.46	0.40	0.36	0.32
2700	/	/	0.84	0.68	0.57	0.49	0.44	0.39	0.35
3000	/	/	0.91	0.74	0.62	0.53	0.47	0.42	0.38

Price ratio table is shown as above. But the table is limited, data isn't. The price ratio can be said to have numerous values, in order to make it more intuitive and clear, we took some typical land price ratio and market price, calculated the price of the limited price room and listed the forms as follows:

Table 3 Limited price housing price simulation table

Market housing price	5000	7500	10000	12500	15000	17500	20000	22500	25000	27500	30000
Price ratio											
0.1	500	750	1000	1250	1500	1750	2000	2250	2500	2750	3000
0.2	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000
0.3	1500	2250	3000	3750	4500	5250	6000	6750	7500	8250	9000
0.4	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000	12000
0.5	2500	3750	5000	6250	7500	8750	10000	11250	12500	13750	15000
0.6	3000	4500	6000	7500	9000	10500	12000	13500	15000	16500	18000
0.7	3500	5250	7000	8750	10500	12250	14000	15750	17500	19250	21000
0.8	4000	6000	8000	10000	12000	14000	16000	18000	20000	22000	24000
0.9	4500	6750	9000	11250	13500	15750	18000	20250	22500	24750	27000

The price ratio table has two applications. First, a direct inquiry through the corresponding market price and the ratio. Then the price of the house price can be estimated (Yao, L.Z., 2003). But, through the table, we can't list every ratio, we can calculate the result of each assignment by the formula (3.1).

4.3 Analysis and discussion

The pricing model is deduced from the fact in Guangzhou. So, we selected a case to verify it.

LongGuang FengJingHuaTing is a limited price room in Guangzhou, China in 2009. It covers an area of more than 30 thousand square meters. It is located on the side of GuangShan highway. The developer is Guangzhou LOGAN Real Estate Co., Ltd., its basic information (all 2009 data) is as follows:

Item	Data
Total building area (square meter)	284063
land-transferring fees (100 million)	3.9214
Average land price (yuan / square meter)	1380
Maximum sales price (yuan / square meter)	4000
The standard price of the region (yuan / square meters)	1980
House prices in the region (yuan / square meters)	5524

We selected the new commercial housing project which was sold at the same time in the vicinity of Fengjing Hua Ting area. Their average price is as follows(RMB): LinYuShanZhuang (6917), HongKangDongZhu (4932), ShangPinhuaTing (4725), different projects have different cities. Field price, the average price of poly XiangXueShan reached ten thousand. Here, we take the average selling price of the above three ordinary commercial houses of the same grade and take the market housing price as 5524 yuan /m². From this, we can calculate the price ratio of FengJingHuanTing:

$$\frac{P_{gf} - 1.375 \times 1380 + 1713.75}{P_{sf} - 1.4425 \times 1980 + 2149} = 0.722$$

The selling price of the FengJingHuaTing is estimated: 0.722 x 5524=3985.6 yuan / m².

Compared with the actual price, the government stipulates that the highest price of FengJingHuaTing should not exceed 4000yuan. And its actual sale price is about 3900-4000yuan which is basically in line with our calculation results.

On the basis of the cost method, combined with the market pricing method and the actual data in various regions, the price ratio of a certain region can be deduced, and the reasonable price of the purchase type housing is calculated.

4. Conclusion

From the point of view of pricing, this paper introduced three basic pricing methods: the cost method, market method and income method, and the market--cost pricing model is theoretically deduced and empirically analyzed.

- (1) According to the actual situation and the combination of specific data, the pricing model of the limited price room in Guangzhou is concretely translated into $\frac{P_{gf} - 1.375p_{gd} + 1500}{P_{sf} - 1.4425p_{sd} + 1881}$, which can be used to calculate the ratio of the price of the house. In Guangzhou, it is verified by FengJingHuaTing project, and the estimated price is 3961.83 yuan/m², and the actual price is around 4000 yuan per unit. The result is basically consistent.
- (2) After studying the pricing model of Hongkong, Macao, and Singapore, it is found that the advantage is that the income of the insured is fully taken into account, and the price system with distinct and clear

guidance is built. We should draw on the developed countries and regions to establish a clear and transparent system of income statistics, clear the standard of building cost accounting, set up a single set of housing price correction standards, and play the role of price in the allocation of resources.

Because the factor of the price of real estate is very complex and the degree of heterogeneity in different regions is very large, the theoretical method must be changed with the actual situation. Many data in the cost pricing model have certain volatility and dissimilarity. This paper only makes exploration and deduction and has certain hypothesis precondition. Because of the difference of construction structure and development period, the data fluctuation of data in different periods is great. So, the formula needs to be adjusted according to the actual situation. This article's scope of research needs to be expanded.

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