

**Business Administration and Business Economics****A Critical Review of Health and  
Education in the “Least Developed Countries” (LDCs)****Atif Jahanger<sup>1</sup>**

**Abstract:** In the framework of educational globalization and the growing power of international organizations in health and educational governance sector in the least developed countries (LDCs) have faced the latest stage of stress about whether their learning strategies should go behind the global educational models or seek out solutions of their diverse problems by encouraging restricted native literacy practices. This article presents an outline of (Least Developed Country) LDCs Asset in which there are several indicators, including health, school enrollment, and literacy. Economic growth has been elevated in the year leading to the economic crisis but remains weak. It repeatedly does not the advantage of the population at large, comes at high ecological costs, as shown by the rate of resource reduction and environmental damages, and youth unemployment remains very high. This article terminated with an appeal for developing circumstantially related literacy plans and policies throughout an asset point of view; and offers instructions for further research to investigate the Least Developed Countries literacy rate, school enrollment, and health policies.

**Keywords:** child health; child nutrition; education; human capital

**JEL Classification:** I12; I21; O12; O15

**1. Introduction**

Many kids in less developed countries are suffering from low quality nutrition and health. The United Nations estimates that one-third of pre-school age kids in the less developed country a total of 180 million kids under the age of 5 are experiencing slow-moving development compared to global standards (United Nations, 2000). Many investigators have tried to estimate the effect of child health on schooling results; however, there are redoubtable boundaries to acquiring realistic estimates. Data are frequently scarce, but more importantly there are numerous viable assets of bias when attempting to estimate relationships between kid health and training.

Studies in Indonesia and India by Soemantri, Pollitt, and Kim (1989), Soewondo Seshadri and Gopaldas (1989), and Pollitt, E. , Hathirat, P. , Kotchabhakadi, N. ,

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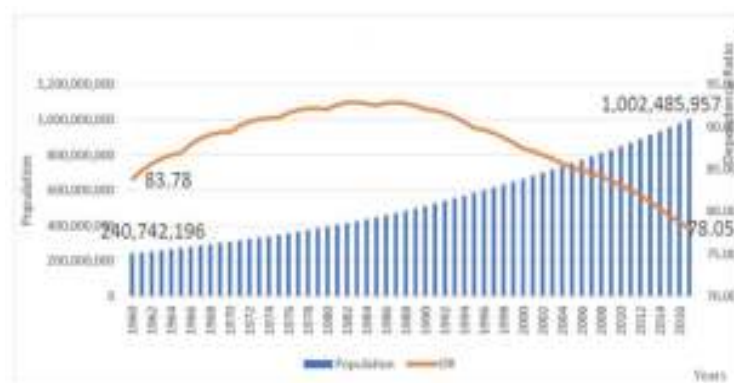
Missel, L. , Valyasevi, A. (1989). Investigate big and statistically significant forces on cognitive development and school presentation of iron supplementation amongst weak children, but Pollitt et al. (1989) have investigated that there is no such impact in Thailand. Nokes, Bosch and Bundy (1998) also an assessment of the iron supplementation literature. Bobonis, Miguel and Sharma (2006) has conduct health program in India in a poor urban area of Delhi and provided deworming and supplementation medicine to 200 preschool kids at the Age of 2 to 6 years. 30 percent sample kids were found to have worm diseases according to the international standard, 69 percent of kids had restrained to face anemia. After five months of continuous treatment of schools children has weight gains and one-fifty a reduction in absenteeism. Miguel and Kremer (2004) has the same study in Kenyan primary schools and found the Same results. Three recent randomized evaluation studies by economists on the impact of health intercessions on education outputs. These studies have carried out by real-world non-government organizations (NGOs) and their findings may be of beneficial interest to policymakers in the least developed countries. All three paper about school-based health interventions which some economists have investigated may be the most cost-effective looms for delivering nutrition and health services in the least developed countries (Bundy & Guyatt, 1996).

While remarkable socioeconomic progress occurred around the world in the past decades, the majority of the least developed countries (LDCs), which make up the most vulnerable and poor families of the countries, were not able to share the global progress. In the first meeting of the United Nations seminar on Development and trade detained in 1964, hand over from the (OECD) countries promoter for generating a new group in the middle of developing countries to magnetize particular hold up events to help the LDCs countries in reducing poverty, and work out education and health interrelated troubles. Many researcher and policymaker adviser shown that the education started after 1990s when significant international evaluation such as the Trends in International Mathematics and Science Study (TIMSS), the International Adult Literacy Survey (IALS) and the Programmed for International Student Assessment (PISA), the Programmed for the International Assessment of Adult Competencies (PIAAC), instigates within the OECD backgrounds ongoing to be a international observable fact determining the educational schemes of Least Developed countries during a homogeneous testing management (Addey, Sellar, Steiner-Khamsi, Lingard & Verger, 2017).

(De Silva, McKenzie, Harpham & Huttly, 2005) Have investigated that a systematic evaluation of mental health and social capital have found in 21 research papers and which only two research papers have investigated in developing countries. Sirven (2006) observes social capital as an arbitrating feature in the corridor among the result of income on self-assessment health in the rural republic of Madagascar. (Szreter & Woolcock, 2004) Has contained access to suitable capital and the

potential to advantage from that property throughout social relations inside and between organizations & communities. Edgeworth and Collins (2006) discover the function of social capital in supplementary households throughout times of independence action of diarrhoeal ailment in the rural area of Bangladesh.

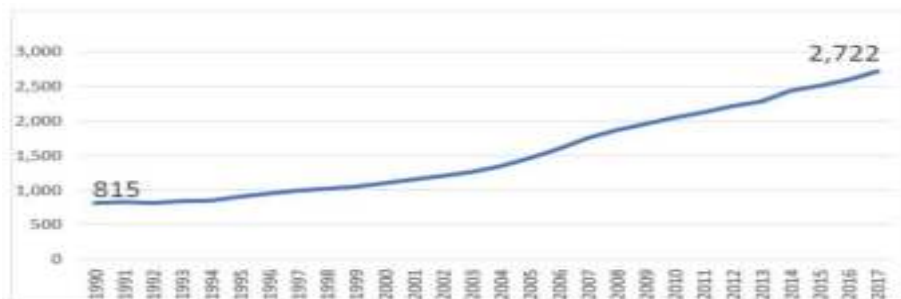
United Nations Economic and Social Council every three years reviewed the list of LDCs to determine LDC's status follow three criteria: (1) Human Assets (2) Per capita income (3) Economic Vulnerability. There are 47 countries in the list of LDCs 2018. Before, several people in this countries have graduated from Least Developed countries status, Botswana in 1994, Cape Verde in 2007, Maldives in 2011, Samoa in January 2014, and Equatoria Guinea in June 2017. In addition to the overview of LDCs, this paper will focus on discussing LDCs Human Asset in which there are several indicators, including health, school enrollment, and literacy.



**Figure 1. Population and Dependency Ratio in LDCs 1960-2017**

*Source: World Bank Data 2018, processed by the author*

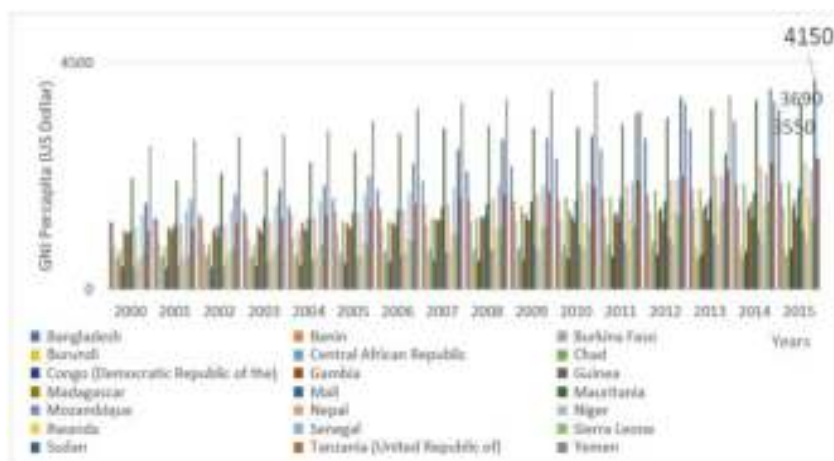
Figure 1 shows that in 2017, the population of LDCs was one (1) Billion - 13.28% of the world's population total (7.53 billion in 2017). Although the LDCs dependency ratio decreases, it is still very high, from 83.78 in 1960 and 2017, it is still 78.05. The high number of LDCs Dependency Ratios shows that the population is in unproductive age (under 15 years and over 64 years). It means the burden that must be borne by the productive population to finance residents who are not productive. This high dependency ratio can affect a country's economic development.



**Figure 2. GNI per capita (PPP) in LDCs 1990-2017**

*Source: World Bank Data 2018, processed by the author*

Figure 2 shows that in 2017, the average GDP percentage in LDCs only USD 2,722. The Highest GNI Percentage LDCs in 2015 are Sudan (4,150 US Dollar), Mauritania (3,690 US Dollar) Bangladesh (3,550 US Dollar). Majority LDCs have a GNI percentage below 2,000 USD. This can be seen in figure 3.



**Figure 3. GNI per capita in LDCs (21 Countries) 2000-2015**

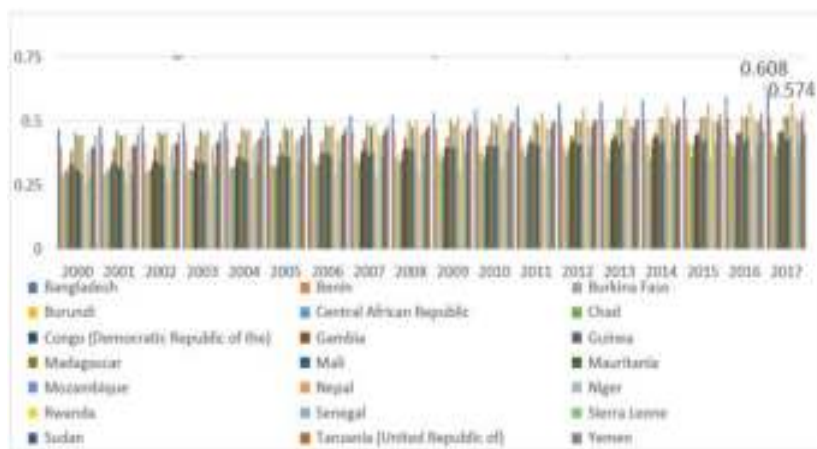
*Source: World Bank Data 2018, processed by author*

**Table 1. HDI and its Component 2017 LDCs, Developing Countries, and OECD**

HDI and its components	LDCs (47 countries)	Developing Countries	OECD
Human Development Index(values)	0.524	0.681	0.895
Life Expectancy Birth (Years)	64.8	70.7	80.6
Expected Years Schooling(Years)	9.8	12.2	16.2
Mean Years Schooling (Years)	4.7	7.3	8.4

Source: UNDP data 2018, processed by the author

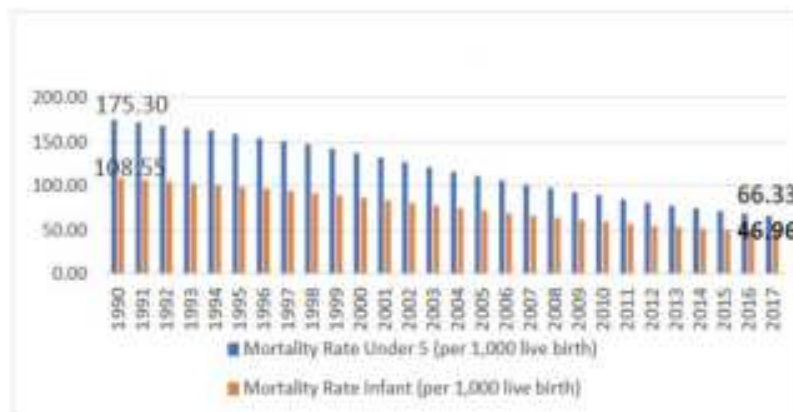
Table 1 shows that the average HDI Index LDCs is 0.524, life expectancy birth 64.8 years, expected years schooling 9.8 years, and mean years schooling 4.7 years. It means that LDCs are lagging compared to developing countries and OECD, where the indicator value is higher than LDCs. In a developing country, the average HDI index is 0.681, average life expectancy birth is 70.7 years and average expected years schooling is 12.2 years. While in OECD all indicators value is more than LDCs and Developing Country, HDI Index is 0.895; average life expectancy birth is 80.6 years, an average expected years schooling is 16.2 years, and average mean years schooling 8.4.



**Figure 4. HDI Index in LDCs (21 Countries) 2000-2017**

Source: World Bank Data 2018, processed by the author

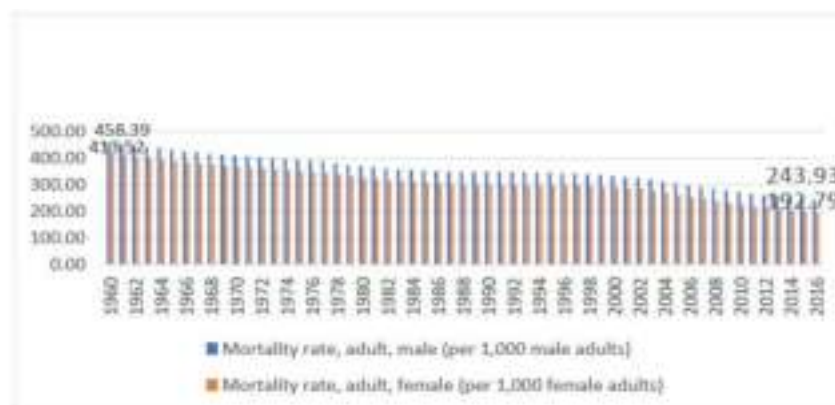
Figure 4 shows that the highest HDI index in 21 LDCs in 2017 is Bangladesh at 0.608 and Nepal at 0.574. The majority of LDCs countries have HDI index below 0.4. HDI Index of Central African Republic and Niger is the lowest in all LDCs, which values 0.367 and 0.354 are respectively.



**Figure 5. Under five year age Mortality Rate and infant mortality Rate (per 1,000 Live Birth) in LDCs 1990-2017**

*Source: World Bank Data 2018, processed by author*

The average infant mortality rate in LDCs was at 108.55 per 1,000 live births in 1990, and every year decrease, but still high at 46.96 per 1,000 live births in 2017. And the average under-five mortality rate was at 175.30 per 1,000 live births in 1990, and every year decrease, but still high at 66.33 per 1,000 live birth since 2017. We can be seen in the Figure number 5.

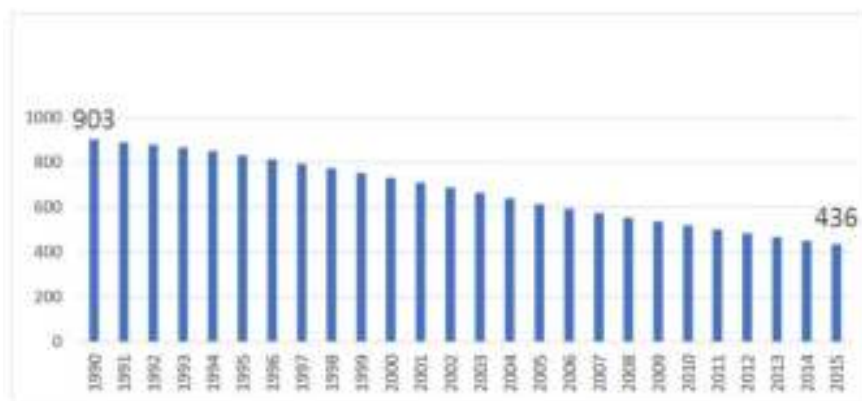


**Figure 6. Mortality Rate, Adult Male and Female (Per 1,000 Live Birth) in LDCs 1960-2017**

*Source: World Bank Data 2018, processed by the author*

Figure 6 shows that the average female mortality rate for an adult was at 192.72 per 1,000 live births in 2017, and every year decrease but still high (In 1960 at 458.39 per 1,000 live births). Mortality Rate Adult Male was at 243.93 per 1,000 live births

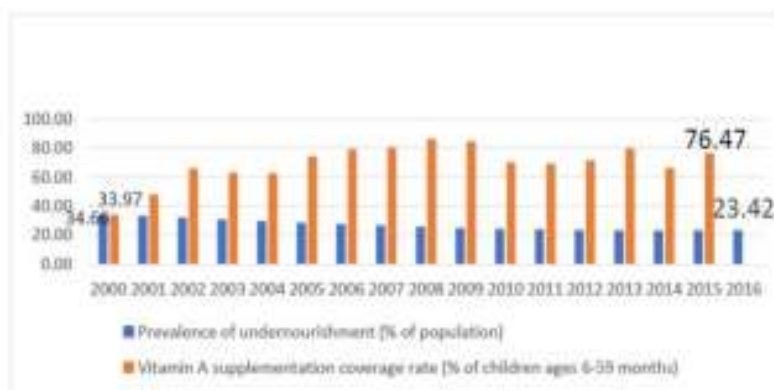
in 2017, and every year decrease but still high (In 1960 at 413. 54 per 1,000 live births).



**Figure 7. Mortality Ratio in LDCs 1990-2015 (Modeled Estimate, per 100,000 live birth)**

*Source: World Bank Data 2018, processed by the author*

The average maternal mortality ratio in LDCs was estimated at 436 per 100,000 births in 2015. From figure 7, we can see that the maternal mortality ratio is decreasing over time, but still higher.

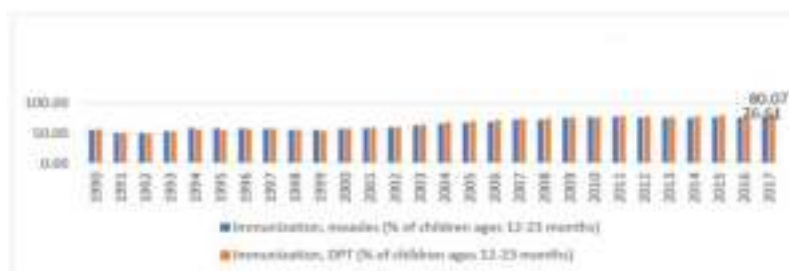


**Figure 8. Prevalence of Undernourishment and Vitamin a Supplementation Coverage Rate in LDCs 2000-2016**

*Source: World Bank Data 2018, processed by the author*

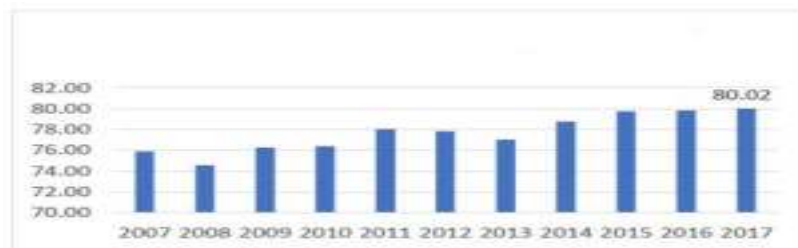
In figure 8, we can see that the average prevalence of undernourishment in LDCs is a very deep concer; there is 23,42% of population undernourishment. It means, close to a quarter of the population does not have to require nutrition. The Supplementation of Vitamin A in LDCs do not cover all children age 6-59 months, just 76,47% is

covered and close to a quarter child do not have to require vitamin A supplementation.



**Figure 9. Measles Immunization and DPT Immunization in LDCs 2000-2016**

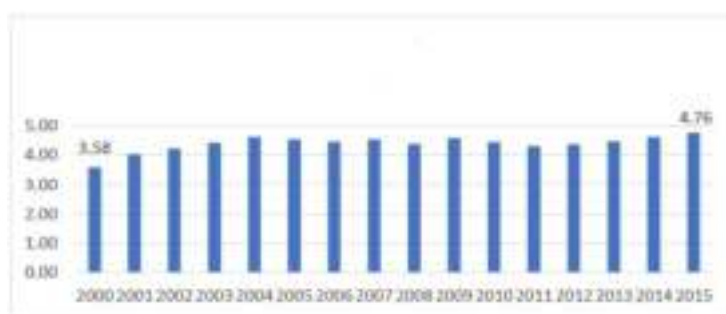
Source: World Bank Data 2018, processed by the author



**Figure 10. HepB3 Immunization in LDCs 2007-2017(% of One-Year-Old Children)**

Source: World Bank Data 2018, processed by the author

Not all children in LDCs get Measles, DPT, and HepB3 Immunization. In 2017, just 76. 61 % of children age 12-23 months got Measles Immunization and 80. 07% got DPT Immunization. Also, HepB3Immunization covers 80. 02% of one-year-old children. This can be seen in Figures no. 9 & 10.

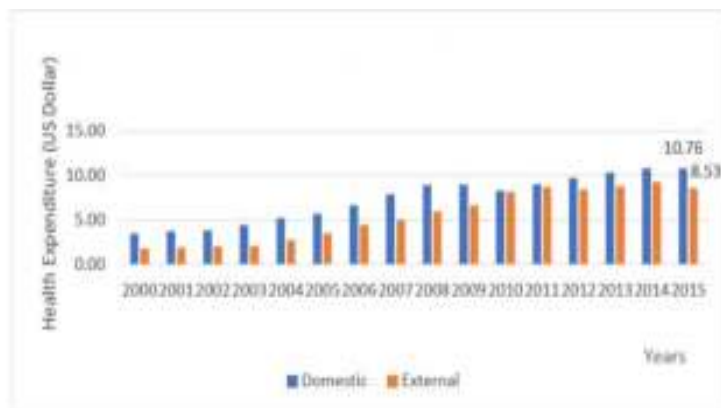


**Figure 11. Current Health Expenditure (5% of GDP) in LDCs 2000-2015**

Source: World Bank Data 2018, processed by the author



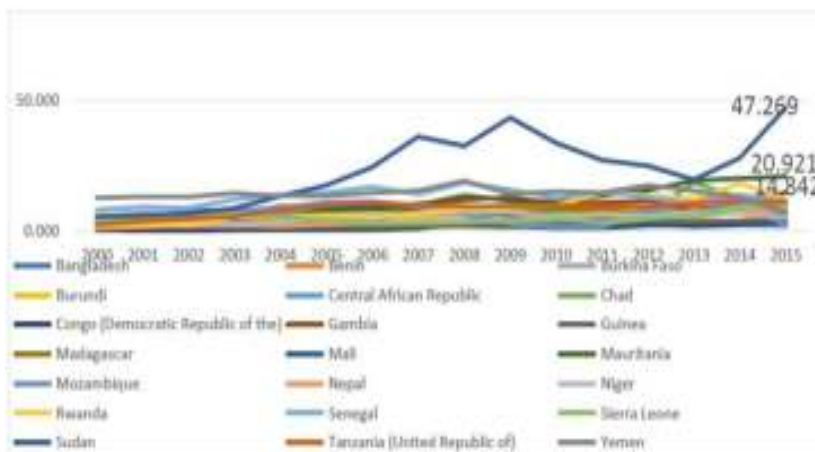
Figure 11 shows that LDCs spend less than 5% of their GDP on health. In 2015, just 4.76% of GDP allocated for current health expenditure.



**Figure 12. Health Expenditure Per Capita in LDCs (5% of GDP) 2000-2015**

*Source: World Bank Data 2018, processed by the author*

In figure 12, the average health expenditure per capita is very low in LDCs from 2000-2015 and depend on an external donor. In 2015, domestic health expenditure per capita is 10.76 US dollar and external health expenditure per capita is 8.53 US dollars.

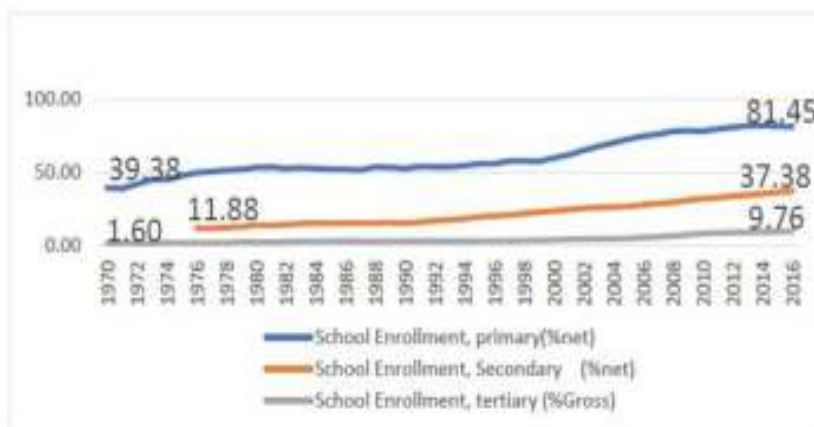


**Figure 13. Domestic General Government Health Expenditure(DGGHE) Per capita in LDCS (21 Countries) 2000-2015**

*Source: World Bank Data 2018, processed by the author*

Figure 13 shows that almost all LDCs have Domestic General Government Health Expenditure (DGGHE) per capita are very low. The highest DGGHE in LDCs is

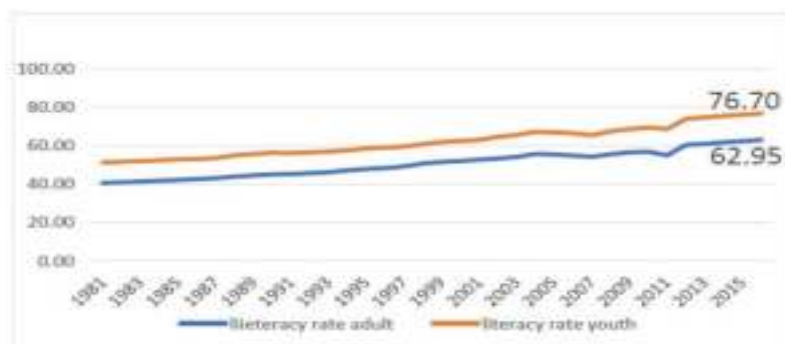
Sudan (47. 269 US Dollar), Mauritania (20. 9 US Dollar) Gambia (14. 842 US Dollar).



**Figure 14. School Enrollment in LDCs 1970-2016**

*Source: World Bank Data 2018, processed by the author*

Figure 14 shows that in 2016, 81,45 % of the population (of the corresponding primary official school age) in LDCs are enrolled in primary school. Its means, close to 20% are not enrolled in primary school. At the secondary school level, just 37. 38% are enrolled and more than 60% of the population (corresponding secondary official school age) are not enrolled. This is a very high concern. Similarly, in tertiary schools, just 9. 76% are enrolled.

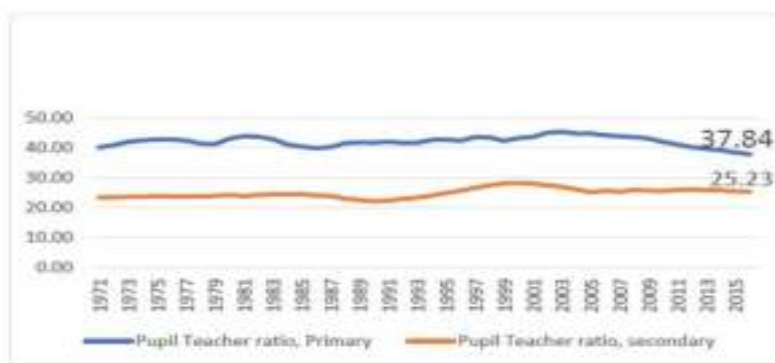


**Figure 15. Literacy Rate in LDCs 1981-2016**

*Source: World Bank Data 2018, processed by the author*

Figure 15 shows that in 2016, the adult literacy rate in LDCs is 62. 95%. it means close 40% of people ages 15 and above cannot both read and write with understanding a short simple statement about their everyday life. Also in figure 15,

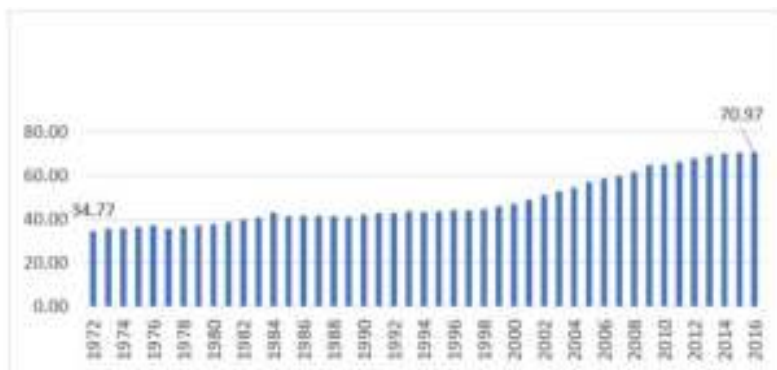
the youth literacy rate in LDCs is 76. 70%. It means 23,3% of people ages 15-24 cannot both read and write with understanding a short simple statement about their everyday lives.



**Figure 16. Pupil-Teacher Ratio in LDCs 1971-2016**

*Source: World Bank Data 2018, processed by the author*

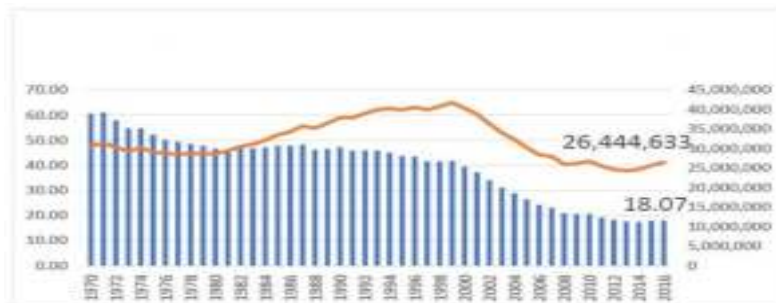
Figure 16 shows that in 2016, the pupil-teacher ratio in primary education in LDCs was 37. 84 students per teacher, and in secondary education, the ratio stood at 25. 23 pupils per teacher in LDCs.



**Figure 17. Primary completion rate in LDCs 1971-2016**

*Source: World Bank Data 2018, processed by the author*

Figure 17 shows that in 2016, 70. 97% of children of primary school age in LDCs can completion until the last grade primary education and close to 30% cannot complete.



**Figure 18. Children out of Primary School in LDCs 1971-2016**

*Source: World Bank Data 2018, processed by the author*

Figure 18 shows that in 2017, 26.44 million children of primary school age in LDCs are not enrolled in primary education or 18.07 % of children are out of primary school.

## 2. Conclusion and Recommendation

Forty-seven countries in the list of LDCs have serious problem in economic, health and education situations, which need to be a common concern. 13.28 % of the population in the world or one billion people live in LDCs, which high dependency ratio (78.05 per 100 people), low GNI per capita (2.722 US Dollars), low HDI index (0.524), and low life expectancy birth (64.8 years). Also, low expected years of schooling (9.8), its mean year schooling (4.7 years). Under 5 mortality ratio, infant mortality ratio, maternal mortality ratio, male adult mortality rate, and female adult mortality rate in LDCs is high, respectively 66.33 per 1,000 live births (2017), 46.96 per 1,000 live births (2017), 436 per 100,000 (2015), 243.93 per 1,000 males (2016), 192.79 per 1,000 females (2016). 23.42 % of the population in LDCs is undernourishment (2016), 23.5 % of children age 6-59 months does not have to require vitamin A supplementation (2016).

In 2017, just 76.61 % of children age 12-23 months got Measles Immunization, 80.07% got DPT Immunization, and HepB3 Immunization covers 80.02%. Current Health Expenditure in LDCs very small, Domestic health just 4.76% of their GDP. Population health in the developing world has the potential to benefit from efforts to improve social capital. Expenditure per capita and External Expenditure per capita are also very low, respectively, 10.76 and 8.53 US dollars. The situation of education in LDCs also very concern, in 2016 close to 20% population's primary school age are not enrolled in primary school. At the secondary school level, more than 60% of the population (corresponding secondary official school age) are not enrolled. Similarly, in tertiary schools, just 9.76% are enrolled.

Adult and youth literacy ratio in LDCs shows that in 2016, close 40% of people ages 15 and above cannot both read and write and 23.3% of people ages 15-24 cannot both read and write with understanding a short, simple statement about their everyday life. The pupil-teacher ratio in primary education in LDCs was 37.84 students per teacher, and in secondary education, the ratio stood at 25.23 pupils per teacher. In 2016, 70.97% children of primary school age in LDCs can get completion until the last grade primary education and close to 30% cannot complete and in 2017, 26,44 million children of primary school age in LDCs are not enrolled in primary education or 18,07 % children are out of primary school.

The governments of Last Developed Countries must go away from (Non-Profit Organization) NGO style and free of charge clinic health care service condition and evolution people to market-rate health insurance strategies. Cohn & Rossmiller (1987) have investigated in developed and less developed countries (LDCs) and presents a few guidelines and implications for educational policy in LDCs. The research presents no source for closing that LDCs should decrease their plane of expenses for education or be indifferent about educational services. This research does recommend that notice must gradually more be directed to how capital is used in the educational process. In order to give confidence for policy-makers and development support organizations to spend money in inventive ways to build up social resources, it is essential to construct a proof base for the result of social capital on health in developing countries, principally for multifaceted health matters such as HIV and AIDS (Thomas-Slayter & Fisher, 2011). Future research on social capital and health in the developing world should focus on applying hypothetical conceptualizations of social capital that can be contrasted across backgrounds in the developing world, acclimatizing and validating tools for measuring social capital, and designing sampling strategies to collect multilevel data on social capital in developing countries.

### **Acknowledgement**

The authors are thankful to Almighty God for this opportunity to research and express their gratitude towards the global scholar community for creating such platforms to share knowledge and to spread awareness.

### **Conflicts of Interest**

The authors declare no conflict of interest.

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## Transmission of Exchange Rate Movement to Domestic Prices in Oil Producing Economy: Evidence from Nigeria

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**Abstract:** Using monthly dataset ranging from January 1980 to December 2016, we explore the case of oil-producing economies namely, Nigeria to evaluate the potential vulnerability of domestic prices to exchange rate movements. Mainly, we utilise the ARDL Bound cointegration testing approach as well the Toda-Yamamoto VAR to determine: (i) the short-run and long-run dynamic of the pass-through and (ii) the magnitude and the direction of the pass-through. Empirically, we find evidence of long-run relationship among exchange rate movement, import price and chain of other prices under consideration. Supporting this evidence is the theoretical appropriateness and significance of the error correction coefficient. Specifically, we find that on average, import prices have the potential of reverting to equilibrium state by 31% of any disequilibrium caused by previous months' shock. However, our finding of no significant EPRT nonetheless the short or long run situations seems puzzled, particularly for a volatile economy such as Nigeria. This may be because exchange rate regimes in the country since independence hovered around the pegged regime and managed float regime. The study further explores TYDL VAR Granger causality test and shows that exchange rate pass-through to import prices is as high as 7%, but mainly when the causality runs from export prices to import and from exchange rate to export prices.

**Keywords:** Exchange Rate; Pass-through; Domestic Prices; ARDL; TY-VAR

**JEL Classification:** E3; E4; E6; F3; F4

### 1. Introduction

The extent to which exchange rate movement affects prices of imported goods and consumer prices has continued to garner attention from researchers across the globe. Conceptually, the process to which domestic prices reflect currency fluctuation termed exchange rate pass-through (ERPT). Theoretically, the ERPT may be complete implying one-to-one in the response of domestic prices changes in exchange rate movement and incomplete ERPT for change in domestic prices that

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are less than one per cent for a one per cent change in the exchange rate. The completeness or incompleteness of the ERPT notwithstanding, that an appreciation of exchange rate reduces for example import prices, while the reverse should hold for exchange rate depreciation. Existing empirical literature on ERPT is categorised into three strands of studies. The first includes studies that focus on disaggregated import prices of specific domestic industries. The second strand of literature includes studies that evaluate the ERPT on aggregated import prices, while the third categories of studies on ERPT measure their domestic prices via consumer price index.

The view that ERPT is a micro-phenomenon started with Dornbusch (1987) seminar paper and had since found support in Campa and Goldberg (2005) who relate the level of (ERPT) to the product composition of imports. However, Marazzi et al. (2005), Taylor (2000), Choudhri and Hakura (2006), Ca'Zorzi et al. (2007), and Bussiere and Peltonen (2008) have rather analysed the ERPT from a macro perspective. While acknowledging this, there has been a large volume of empirical literature documenting the transmission of exchange rate movement into domestic prices. Existing studies have continued to focus on the case of developed economies, with little or no attempt to understand how exchange rate movement transmitted into domestic prices of developing oil-producing economies.

Premising on the increasing integration of the world economy coupled with the assertions that oil-producing economies are mostly imports dependent. Hence, the innovation in this study is to determine the extent to which changes in oil price matters for the degree of ERPT in the context of the oil-producing economy. Essentially, the study utilises an ARDL Bound cointegration test to examine the short and long-run dynamics of ERPT. We further explore the Toda-Yamamoto VAR empirical modelling approach to determine not only the magnitude but also the direction of ERPT.

Following this introductory section, the remaining sections of the paper are divided into four as follows: Section two dwells on existing empirical literature on the dynamics of ERPT. Here, the study reviews some empirical findings on the degree and direction of the pass-through of fluctuations in the exchange rate to domestic prices. Section three discusses the methodology and specified the estimated model. Section four explained the data and carried out a preliminary to understand the statistical features of the variables under consideration and whether the specified model is adequate to capture those features. Section five presents and discusses the empirical results, while section six draws a conclusion and provide policy implications.



## 2. Literature Review

Motivated by the assertion that movement in exchange rate could impact import, producer and consumer prices via trade distortions, fluctuations in exchange rate, among others, a number of studies, namely; Karagoz et al. (2016), Mirdala (2014), Choudhrin and Hakuar (2013), Ghosh (2013), Jiang and Kim (2013), Odria et al. (2012), Brun-Aguerre et al. (2012), Marazzi and Sheets (2007), Barhoumi (2006), and Choudhrin and Hakuar (2006) have examined the dynamics of ERPT accounting for some of these factors. However, whether the completeness or partial nature of ERPT has been the concern of some of the extant studies, see for example, He, 2015; Mohammed, 2015; Saha and Zhang, 2014; Kumar, 2014; Uddin et al. , 2014; Zubair et al. , 2013; Al-Abri and Goodwin, 2009; Ghosh and Rajan, 2009; Bhattacharya, 2008; and the likes. Using a panel estimation technique, Brun-Aguerre et al. (2012) identify factors such as inflation, exchange rate volatility, openness and relative wealth as significant for explaining ERPT in emerging economies. For Barhoumi (2006), exchange rate regimes, trade barriers and inflation regimes were identified as the accelerator of ERPT into import prices of developing economies. Marazzi and Sheets (2007) attribute the declining nature of ERPT to US import prices to global factors such as; increasing prominence of competition from China, a shift in import pricing pattern which follows up from the Asian financial crisis, and lastly due to the reduced share of material-intensive goods in U. S. imports.

Karagoz et al. (2016), Choudhrin and Hakuar (2013), and Odria et al. (2012) though differs in their methodological approaches, as well as the data-set, utilises in their respective studies, yet their finding unanimously suggests that adopting inflation targeting policy could lower the degree of ERPT. Peon and Brindis (2014), Lin and Wu (2012), Gagnon and Ihrig (2004), Taylor (2002), Mishkin and Schmidt-Hebbel (2002), among others, have also analysed ERPT within the framework of inflationary targeting environment. Using the case of G-7 countries, Jiménez-Rodríguez and Morales-Zumaquero (2016) show that there is a positive and significant correlation between ERPT and inflation volatility and that the degree of ERPT depends on the exchange rate regime being practised. Using a post-Bretton Woods industry-level dataset, Bhattacharya (2008) analysis EPRT ERPT for the case of the USA, UK, and Japan. Empirical finding from the study shows that the degree varies for the countries. Using a structural autoregressive model to investigate the transmission of exchange rate movements to domestic prices, Zubair et al. (2013) report the ERPT as incomplete in the case of Nigeria. In a similar development, Saha and Zhang (2014) carried out a comparative analysis using the case of Australia, China, and India and their result indicate the ERPT as relatively lower in China and India when compared to ERPT in Australia.

Al-Abri and Goodwin (2009) use a non-linear estimation technique to re-examine the exchange rate pass-through into import prices of 16 OECD countries. Their

finding shows that import prices respond faster and by a larger extent to exchange rate shocks. In a similar development, Aleem and Lahiani (2014) model exchange rate pass-through in Mexico using a threshold VAR and finds that the ERPT is statistically significant above the threshold level of the inflation rate, but insignificant below it. Ahmad and Muda (2013) estimate exchange rate pass-through for Sukuk issuing countries using recursive VAR model. Their finding shows that import and consumer prices pass-through increases in the long horizon in the case of Bahrain and Saudi Arabia, but lower for other countries. Analysing the case of Central and Eastern European member states, Beirne and Bijsterbosch (2011) report ERPT as higher for countries that adopt a fixed exchange rate regime. Yanamandra (2015), Mohammed (2015), Jimborean (2013), Oyinlola and Egwaikhide (2011) also finds evidence of significance ERPT in their respective studies.

**Table 1A. Cursory of the Review of Literature on Exchange Rate Pass-Through into Domestic Prices**

Author(s)	Title/Country	Data/Period	Methodology	Findings
Ahmad and Muda (2013)	Exchange rate pass-through estimates for Sukuk issuing countries	Annual Time Series: (1970-2010)	Recursive VAR model	Shows that import and consumer prices pass-through increases on the long horizon in the case of Bahrain and Saudi Arabia
Al-Ahri and Goodwin (2009)	Re-examining exchange rate pass-through into import prices of 16 OECD countries	Quarterly Time Series: (1975-2012)	Non-Linear Threshold Cointegration Approach	That the extent of responding of import prices to exchange rate is faster via threshold cointegration approach as against the conventional Model.
Aleem and Lahiani (2013)	A threshold vector autoregression model of exchange rate pass-through in Mexico	Monthly Time Series: (1994-2009)	Threshold VAR model	Shows that the exchange rate pass-through to domestic prices is statistically significant above the threshold level of the inflation rate, but statistically insignificant below it.
Barhoumi (2006)	Differences in long-run exchange rate pass-through into import prices in 24 developing countries	Annual Panel Data: (1980-2003)	The non-stationary Panel estimation technique □	Shows that differences in exchange rate pass-through into import prices are due to macroeconomic determinants.
Beirne and Bijsterbosch (2011)	Exchange rate pass-through in central and eastern European EU member states	Monthly Data (1995-2009)	Variant cointegrated VAR and VECM	Finds that ERPT is higher for countries that have adopted some form of fixed exchange rate regime.
Bhattacharya et al. (2008)	Exchange rate pass-through and relative prices: An industry-level empirical investigation for USA, UK, and Japan	Monthly Time Series	VAR model framework	Reveals considerable variation in the extent of pass-through across industries and countries.

	empirical investigation for USA, UK, and Japan			
Brun-Aguerre et al. (2012)	Exchange rate pass-through into import prices revisited: What drives it in 18 emerging markets and 19 developing markets?	Quarterly Data: (1980-2009)	Time Series and Panel Estimation Techniques	That the pass-through is more effective via unobserved country-specific than via observable country-specific. □
Choudhry and Hakura (2006)	Exchange rate pass-through to domestic prices of 71 selected developing and industrial countries: Does the inflationary environment matter	Annual Time Series: (1979-2000)	Time series and panel regression approaches	Reports strong evidence of a positive and significant relationship between the pass-through and the average inflation rate across countries and periods.
Choudhry and Hakura (2014)	The exchange rate pass-through to import and export prices: the role of nominal rigidities and currency choice in 18 advanced countries and 16 emerging economies	Quarterly Data: (1972-2010)	Dynamic General Equilibrium Model (DGEM)	That the exchange rate pass-through to import prices for a large number of countries is incomplete and larger than the pass-through to export prices.
Ghosh (2013)	Exchange rate pass-through, macro fundamentals, and regime choice in Latin America	Quarterly Data (1970-2010)	Time Series and Panel Data Estimation Techniques	Finds ERPT to be positively influenced by money supply growth, interest rate volatility and inflation rates.
Ghosh and Rajan (2009)	Exchange rate pass-through in Korea and Thailand: Trends and determinants	Quarterly Time Series (1980-2006)	Dynamic OLS (DOLS)	That ERPT seems consistently higher for Thailand compared to Korea.
He et al. (2015)	Measure the pass-through of the RMB exchange rate to prices of different industries in China. □	Monthly Time Series: (1999-2014)	Time series method and Dynamic Bayesian Network method	It shows that wood, chemistry, textile, and other labour-intensive industry prices are sensitive to the fluctuation of the RMB exchange rate, yet the pass-through is not significant for energy, black metal, non-ferrous metals, and other mineral industries prices.
Jiang and Kim (2013)	Exchange rate pass-through to inflation in China	Monthly Time Series: (1999-2009)	A Structural VAR model	Finds that ERPT to the producer price index (PPI) and retail price index (RPI) are generally incomplete
Jimborean (2013)	The exchange rate pass-through in the new EU member states	Quarterly Data (1996-2011)	Panel Model (Generalized Method of Moment)	Reports a statistically significant ERPT to consumer, producer and import prices both in the short and long run
Jiménez-Rodríguez and Morales-Zumaquero (2016)	A new look at the exchange rate pass-through in the G-7 countries. □	Quarterly Data (1970-2014)	Single equation approach, the VAR approach, and the time-varying approach.	Indicates a robust and positive significant connection between ERPT and inflation volatility and that the ERPT depends on the exchange rate regimes.
Karagoz et al. (2016)	The pass-through effect from	Annual Panel Data: (2002-	Panel VAR model	Shows that the pass-through effect in Asia Pacific economies

	exchange rates to the prices in the framework of inflation targeting Policy: A Comparison of Asia-Pacific, South American, and Turkish Economies	2010)		is lower than pass-through effects in Latin America and Turkey.
Kumar (2014)	Exchange rate pass-through in India	Monthly Time Series: (1995-2013)	A Structural VAR model	Finds that exchange pass-through has no significant impact on domestic prices in India
Lin and Wu (2012)	Exchange rate pass-through in deflation: the case of Taiwan	Monthly Time Series (1981-2008)	Threshold Autocorrelation Model (TAR)	Indicate that the price of oil influences the measurement of the degree of pass-through. Hence, changes in the degree of pass-through are less variable once the price of oil is excluded.
Marazzi and Sheets (2007)	Declining exchange rate pass-through to U.S. import prices: The potential role of global factors	Quarterly Time Series: (1972-2004)	Rolling regressions (with a fixed 10-year window)	Reports a robust and sustained decline in exchange rate pass-through to U.S. import prices.
Mirdala (2014)	Exchange rate pass-through to consumer prices in the European transition economies	Monthly Time Series: (2000-2012)	Vector Autoregression (VAR) model.	Reveals different patterns of exchange rate pass-through to domestic prices according to the baseline period as well as the exchange rate regime diversity.
Mohammed (2015)	Exchange rate pass-through in Algeria	Quarterly Time Series: (2002-2011)	Vector Autoregression (VAR) model.	Shows that the pass-through is complete for EURO/DZ, but modest US dollar /DZ exchange rate.
Odria et al. (2012)	Does the exchange rate pass-through into prices change when inflation targeting scheme is adopted in Peru	Monthly Time Series: (1994-2007)	Dynamic stochastic general equilibrium model (DSGEM) and VAR model	Reveals that the decision to adopt inflation targeting decreased the exchange rate pass-through significantly. □
Oyinlola and Egwukhude (2011)	Exchange rate pass-through in Nigeria: A dynamic investigation	Annual Time Series: (1980-2008)	Vector Error Correction Model (ECM)	Reveals evidence of a long-run relationship between exchange rate pass-through and domestic price level, but the short-run impact is not elusive evident. □
Peon and Branda (2014)	Analysing the Exchange Rate Pass-through in Mexico: Evidence Post Inflation Targeting Implementation □	Monthly Time Series: (2001-2013)	Recursive Structural VAR with exogenous variables (recursive SVAR-X)	Finds that exchange rate pass-through to consumer prices is quite small and fast and exchange rate surprises are not relevant to explain consumer price inflation variation.
Saha and Zhang (2012)	Do exchange rates affect consumer prices? A comparative analysis for Australia, China, and India	Monthly Time Series: (1990-2011)	A Structural VAR model	The finding suggests that exchange rates have less effect on the rising domestic prices in China and India.
Uddin et al. (2014)	The impact of depreciation on the domestic price level of Bangladesh	Quarterly Time Series: (2000-2011)	A Structural VAR model	Indicate strong evidence of a positive and significant relationship between the pass-through and average inflation rate.
Yazamandra (2015)	Exchange rate changes and inflation in India: What is the extent of exchange rate pass-through to imports?	Monthly Time Series (2003-2013)	Error Correction Model (ECM)	Shows that there is more than complete exchange rate pass-through into Indian import prices in both the short-run long run. □
Zubair et al. (2013)	Exchange Rate Pass-Through to Domestic Prices in Nigeria	Quarterly Time Series: (1986-2010)	A Structural VAR model	Suggests that exchange rate pass-through into domestic prices in Nigeria is incomplete, low, and fairly slow.

### 3. Methodological Framework

#### 3.1. The Model

To empirically evaluate the dynamics of exchange rate pass-through in the context of the oil-producing economy namely Nigeria, this study explores the law of one price which is the same theoretical foundation previous studies such as Al-Abri and Goodwin (2009) and Campa and Goldberg (2002) utilises in their analysis of ERPT. The law of one price posits that changes in the exchange rate are expected to be fully reflected in domestic prices such that, a one per cent change in exchange rate leads to a one per cent change in domestic prices (complete pass-through). Consequently, the law refers to less than one-to-one per cent response of domestic prices to exchange rate as incomplete pass-through.

Following Campa and Goldberg (2005) as cited in Barhoumi (2005), the exchange rate pass-through model represented as the elasticity of import prices to a change in exchange rates could be stated as thus;

$$dp_t = ep_t^* \quad (1)$$

Where  $p_t$  is the home currency price of the good in the local country,  $p_t^*$  is the foreign currency price of the good in the foreign country and  $e$  is the exchange rate of the local currency per unit of the foreign currency. Equation (1) can be expressed regarding import prices  $p_t^{MP}$  as:

$$p_t^{MP} = p^{EX} e^{NEER} \quad (2)$$

Where  $e^{NEER}$  is the nominal effective exchange rate and  $p^{EX}$  represents export prices. According to Al-Abri and Goodwin (2009), the export prices in equation (2) is a function of both markup ( $\theta$ ) and ( $c^{EPC}$ ) the producer's marginal cost and as such can be expressed as:

$$p^{EX} = \theta c^{EPC} \quad (3)$$

Embracing the assumption of costless arbitrage (i. e. no markup), import prices in local currency can then be represented as:

$$p^{MP} = p^{EX} e^{NEER} = e^{NEER} c^{EPC} \quad (4)$$

While equations (4) originally imply that import prices are affected by both exchange rate and foreign costs of production, to account for the peculiarity of the concerned economy (Nigeria in this case), we further explore price generating framework to allow for the incorporation of other factors in the pass-through equation. Such factors in the context of this study include world oil price and additional domestic prices indicators. To this end, the empirical specification of the pass-through equation using a log-linear transformation is as follows:

$$\ln MP_t = \alpha + \beta_1 \ln XP_t + \beta_2 \ln NEER_t + \beta_3 \ln OP_t + \beta_4 \ln CPI_t + \beta \ln PPI_t + \varepsilon_t \quad (5)$$

Equation (5) is the study's baseline equation. This is akin to the standard exchange rate pass-through model, where ( $\ln MP$ ) denotes log of import price index, ( $\ln XP$ ) is log of export price index, ( $\ln NEER$ ) is log of nominal effective exchange rate, ( $\ln OP$ ) is log of world oil price movement, ( $\ln CPI$ ) is the log of consumer price index, while ( $\ln PPI$ ) is log of producer price index.

### 3.2. Econometric Technique

To examine the long and short-run dynamics of ERPT to domestic prices in Nigeria, we structured our estimation procedure into three phases. The first phase would involve some pre-tests such as unit root and cointegration tests. The second procedure is a concern with the model estimation, while the final phase involves some diagnostic tests meant to ascertain the robustness of the model used for our estimation. In the first phase, the three-unit root tests conducted are Augmented Dickey-Fuller (ADF), Dickey-Fuller GLS and Ng-Perron unit root tests. In an attempt to examine the existence of a long-run relationship among the variables of interest, the study employs the Pesaran et al. (2001) Autoregressive distributed lag (ARDL) test for co-integration.

The use of ARDL co-integration approach rather than the conventional Johansen co-integration testing hinges on some features of the former. These features include a mixture of I(0) and I(1) data, assigned different lag-lengths for different variables as they enter the model. It does not require unit root testing which is a prerequisite in the conventional approach, it could be used regardless of whether the underlying variables are I(0), I(1) or fractionally integrated, and this is coupled with the facts that it involves just a single-equation set-up, making it simple to implement and interpret.

The above notwithstanding, to apply the bound test, it is important to make sure that the variables under consideration are not integrated at an order higher than one. In a situation where there is the presence of I(2) variables, the critical value provided by Pesaran et al. (2001) is no longer valid. Thus, the following ARDL representation of equation (5) would be estimated to test the existence of a long-run relationship between exchange rate movement and domestic prices in the model:

$$\ln MP_t = \beta_0 + \sum_{i=1}^k \beta_1^i \Delta \ln NEER_{t-i} + \sum_{i=1}^k \alpha_2^i \Delta \ln XP_{t-i} + \sum_{i=1}^k \alpha_3^i \Delta \ln OP_{t-i} + \sum_{i=1}^k \alpha_4^i \Delta \ln CPI_{t-i} + \sum_{i=1}^k \alpha_5^i \Delta \ln PPI_{t-i} + \sum_{i=1}^k \beta_6^i \Delta \ln MP_{t-i} + \beta_7 \ln NEER_{t-1} + \beta_8 \ln XP_{t-1} + \beta_9 \ln OP_{t-1} + \beta_{10} \ln CPI_{t-1} + \beta_{11} \ln PPI_{t-1} + \beta_{12} \ln MP_{t-1} \quad (6)$$

To determine the optimal lag length for the ARDL model, lag selection criteria such as the Schwartz Information Criteria (SIC) and Akaike Information Criteria (AIC) are employed, and the lag combination that minimises these criteria is the optimal lag. Given the chosen lag requires, the F-test is used for testing the existence of a long-run relationship in equation (6), where the null hypothesis of no long-run relationship is defined as ( $H_0: \beta_7 = \beta_8 = \beta_9 = \beta_{10} = \beta_{11} = \beta_{12} = 0$ )

The F-test has a non-standard distribution which depends upon: (i) whether variables included in the ARDL model are to be I(0) or I(1), (ii) whether the ARDL model contains an intercept and a trend. Pesaran and Pesaran (1997) reported two sets of critical values (CVs): one set is calculated assuming that all variables included in the

ARDL model are  $I(1)$  and the other is estimated considering the variables are  $I(0)$ . If the calculated F-statistic is higher than the upper bound critical value, it suggests rejection of the null hypothesis of no long-run relationship. If the calculated F-statistic is lower than the lower bound of the critical value, then the null hypothesis cannot be rejected. Finally, if it falls in between the lower and upper bound, then the result is inconclusive. Once the cointegrating relationship is established, the short-run dynamics are also analysed. The error correction model representation of the ARDL model is specified in equation (7) below:

$$\Delta \ln MP_t = \alpha_0 + \sum_{i=1}^k \alpha_1^i \Delta \ln NEER_{t-i} + \sum_{i=1}^k \alpha_2^i \Delta \ln XP_{t-i} + \sum_{i=1}^k \alpha_3^i \Delta \ln OP_{t-i} + \sum_{i=1}^k \alpha_4^i \Delta \ln CPI_{t-i} + \sum_{i=1}^k \alpha_5^i \Delta \ln PPI_{t-i} + \sum_{i=1}^k \beta_6^i \Delta \ln MP_{t-i} + \lambda ECM_{t-1} + \varepsilon_t \quad (7)$$

Where  $\lambda$  is the speed of adjustment parameter and the error correction term (ECM) is the OLS residuals series from the long-run cointegrating regression? The *ECM* coefficient is expected to be significant with a negative sign (this is necessary for it to perform the role of error correction).

### Causality Test

To complement this study, we further employ Toda and Yamamoto (1995) and Dolado and Lutkepohl (1996) (TYDL henceforth) causality testing approach to determine the direction and the degree of the pass-through. Although, there are others prominent approaches to implement causality testing namely; a VAR model in the level data; a VAR model in the first difference data (VARD), and a vector error correction model (VECM). But the simulation results by Yamada and Toda (1998), rather suggests that of all the prominent causality procedures, TYDL is relatively the more stable when compared to VAR and VECM. The main rationale behind TYDL is to artificially augment the correct VAR order,  $k$ , with  $D_{max}$  extra lags, where  $D_{max}$  is the maximum likely order of integration of the series contained in the system.

In this present study, however, we follow the TYDL framework and the given lag augmented VAR ( $k + D_{max}$ ) for a distribution chain of prices is represented as follows:

$$\begin{bmatrix} Y_{1t} \\ Y_{2t} \\ Y_{3t} \\ Y_{4t} \\ Y_{5t} \end{bmatrix} = \begin{bmatrix} \delta_{10} \\ \delta_{20} \\ \delta_{30} \\ \delta_{40} \\ \delta_{50} \end{bmatrix} + \sum_{i=1}^k \begin{bmatrix} \delta_{11,i} & \delta_{12,i} & \delta_{13,i} & \delta_{14,i} & \delta_{15,i} \\ \delta_{21,i} & \delta_{22,i} & \delta_{23,i} & \delta_{24,i} & \delta_{25,i} \\ \delta_{31,i} & \delta_{32,i} & \delta_{33,i} & \delta_{34,i} & \delta_{35,i} \\ \delta_{41,i} & \delta_{42,i} & \delta_{43,i} & \delta_{44,i} & \delta_{45,i} \\ \delta_{51,i} & \delta_{52,i} & \delta_{53,i} & \delta_{54,i} & \delta_{55,i} \end{bmatrix} \begin{bmatrix} Y_{1t-i} \\ Y_{2t-i} \\ Y_{3t-i} \\ Y_{4t-i} \\ Y_{5t-i} \end{bmatrix} + \sum_{j=1}^{d_{\max}} \begin{bmatrix} \delta_{11,k+j} & \delta_{12,k+j} & \delta_{13,k+j} & \delta_{14,k+j} & \delta_{15,k+j} \\ \delta_{21,k+j} & \delta_{22,k+j} & \delta_{23,k+j} & \delta_{24,k+j} & \delta_{25,k+j} \\ \delta_{31,k+j} & \delta_{32,k+j} & \delta_{33,k+j} & \delta_{34,k+j} & \delta_{35,k+j} \\ \delta_{41,k+j} & \delta_{42,k+j} & \delta_{43,k+j} & \delta_{44,k+j} & \delta_{45,k+j} \\ \delta_{51,k+j} & \delta_{52,k+j} & \delta_{53,k+j} & \delta_{54,k+j} & \delta_{55,k+j} \end{bmatrix} \begin{bmatrix} Y_{1t-k-j} \\ Y_{2t-k-j} \\ Y_{3t-k-j} \\ Y_{4t-k-j} \\ Y_{5t-k-j} \end{bmatrix} + \begin{bmatrix} \varepsilon_1 \\ \varepsilon_2 \\ \varepsilon_3 \\ \varepsilon_4 \\ \varepsilon_5 \end{bmatrix} \quad (8)$$

Where  $Y_{1t}$ ,  $Y_{2t}$ ,  $Y_{3t}$ ,  $Y_{4t}$  and  $Y_{5t}$  denotes exchange rate movement, import prices, consumer prices, producer prices, and world oil prices. The above five variables TYDL VAR approach modified the original bivariate form of Toda and Yamamoto (1995) to accommodate our variables of interest, where  $k$  denote the optimal lag length which is determined by the usual information criteria such as AIC and SIC, while  $d_{\max}$  is the maximum order of integration.

Essentially, to draw valid causal inferences, the TYDL causality test technique utilises a modified Wald test statistic (MWALD). This technique restricts the parameters of  $k$ -th optimal lag order of the vector autoregressive. It has an asymptotic chi-square distribution when VAR ( $k + d_{\max}$ ) is estimated. The direction of causality running from exchange rate to import price, from the import price to exchange rate and so on can be reflected as follows:

$H_{01} : \delta_{12,1} = \delta_{12,2} = \dots = \delta_{12,k} = 0$ , implies that import price does not Granger cause exchange rate movement.

$H_{02} : \delta_{21,1} = \delta_{21,2} = \dots = \delta_{21,k} = 0$ , implies that the exchange rate movement does not Granger cause import price.

$H_{03} : \delta_{13,1} = \delta_{13,2} = \dots = \delta_{13,k} = 0$ , implies that consumer price does not Granger cause exchange rate movement.

$H_{04} : \delta_{31,1} = \delta_{31,2} = \dots = \delta_{31,k} = 0$ , implies that the exchange rate does not Granger cause consumer price (CPI).

Following similar procedures, the direction of causality between exchange rate movement and producer prices, exchange rate movement and oil prices can also be evaluated.



## 4. Data and Preliminary Analysis

### 4.1. Data Source and Description

This study utilises monthly time series ranging from 1980 to 2016. The variables which are mainly sourced from IFS includes Import Price Index (IMP) as a proxy for domestic prices, Nominal Effective Exchange Rate (NEER) calculated as the trade-weighted average of the country's exchange rate against other currencies as a measure of the exchange rate. Others are Exporter's Production Cost (XP) measures using export price index, Consumer Price Index (CPI), producers' price (PPI) which measures using manufacturing value index, while the Brent crude oil price is used to proxy for the world oil price. All the data are expressed in natural logarithm term.

#### 4.1.1. Unit Root Test Results

Even though the bound test approach to cointegration does not require pre-testing of variables for unit roots, it is, however, important to perform this test to verify and ascertain that none of the variables is integrated of order higher than one. In addition to the traditional ADF unit root test, a more efficient unit root test such as Dickey-Fuller GLS test and Ng-Perron test were also implemented. The essence is to ascertain some level of consistency to ensure the result is free from any form of spurious regression. The results as presented in Table 2 below shows that the integration properties for the series varies across the three tests, but hover around I(0) and I(1). This, therefore, appears to have affirmed our choice of ARDL as the more appropriate estimation technique.

**Table 2. Unit Root Test Results**

	ADF			DFGLS			Ng-P		
	Level	First Diff.	I(d)	Level	First Diff.	I(d)	Level	First Diff.	I(d)
Ln(ENR)	-1.963 <sup>b</sup>	-17.614 <sup>****</sup>	I(1)	-2.029 <sup>b</sup>	-17.501 <sup>****</sup>	I(1)	-8.711 <sup>b</sup>	-154.996 <sup>****</sup>	I(1)
Ln(MP)	-1.863 <sup>a</sup>	-15.897 <sup>****</sup>	I(1)	-1.697 <sup>**</sup>	-	I(0)	-5.938 <sup>**</sup>	-	I(0)
Ln(XP)	-3.017 <sup>b</sup>	-12.654 <sup>****</sup>	I(1)	-1.797 <sup>b</sup>	-12.273 <sup>****</sup>	I(1)	-6.640 <sup>**</sup>	-	I(0)
Ln(CPI)	-0.865 <sup>a</sup>	-7.452 <sup>****</sup>	I(1)	-2.664 <sup>****</sup>	-	I(0)	-3.831 <sup>b</sup>	-72.195 <sup>****</sup>	I(1)
Ln(PPI)	-1.939 <sup>b</sup>	-13.612 <sup>****</sup>	I(1)	-1.361 <sup>b</sup>	-2.655 <sup>b*</sup>	I(1)	-4.032 <sup>b</sup>	-15.737 <sup>****</sup>	I(1)
Ln(OP)	-2.129 <sup>a</sup>	-14.217 <sup>****</sup>	I(1)	-1.155 <sup>b</sup>	-8.444 <sup>****</sup>	I(0)	-6.623 <sup>b</sup>	-147.902 <sup>****</sup>	I(1)

Note: <sup>a</sup> Indicates a model with constant but without deterministic trend; <sup>b</sup> is the model with the constant and deterministic trend. Exogenous lags are selected based on the Schwarz Information Criterion. \*\*\*, \*\*, \* imply that the series is stationary at 1%, 5% and 10% respectively. ADF, DFGLS, and Ng-P denote Augmented Dickey-Fuller, Dickey-Fuller\_GLS, and Ng-Perron Unit Root tests. The null hypothesis for ADF, DFGLS, and Ng-P is that an observable time series is not stationary (i. e. has unit root).

## 5. Presentation and Discussion of Empirical Results

### 5.1. Short-Run and Long-Run Dynamics

Following the establishment of a long-run relationship among the variables, the study proceeds to estimate both the short and long-run coefficients using OLS regression technique on equations (6) and (7). For instance, the computed F-statistic of 7.67 in Table 3 seems to be greater than the upper critical bound value irrespective of the chosen levels of significance considered. This, therefore, portends that the null hypothesis of no cointegration does not hold in the case of Nigeria. More importantly, the indication of cointegration as evident herein implies that, even if there are shocks in the short run, which may affect movement in the individual series, they can still converge with time, in the long-run.

**Table 3. ARDL Bound Testing Cointegration Results**

Dependent Variable	F-Statistic = 7.6673		
	Critical Value	Lower Bound	Upper Bound
<i>Ln(MP), Ln(EXR), Ln(XP), Ln(CPI), Ln(PPI), Ln(OP)</i>	1%	3.42	4.68
	5%	2.62	3.28
	10%	2.26	3.35

Note: Asymptotic critical value bound is obtained from table *CI* (iii) case II: unrestricted intercept and no trend for  $k = 6$  (Pesaran *et al.* 2001)

The evidence of strong rejection of the null hypotheses across virtually all the post-estimation tests reported in Table 4 is a validation of the empirical estimates obtained from the estimation of the specified ARDL model. Essentially, the error correction mechanism of the model is both theoretical and empirically viable. The error correction coefficient, which is both negatively sign and significance, suggests that on average, import prices in the short run adjust to equilibrium in Nigeria by 31% of any disequilibrium caused by previous months' shock.

Consequently, the short-run and the long-run coefficients of NEER are negative and positive, respectively. However, the insignificance of the coefficients means that nonetheless the depreciation or appreciation channels of exchange rates, the ERPT may not be significant in the case of Nigeria. Although the insignificance of EPRT may seem puzzled, particularly for a volatile economy such as Nigeria, this, however, may not be unconnected to the fact that exchange rate regimes in the country since independence hover around peg regime and manage float regime.

Consistent with the economic theory of international trade is the evidence of a positive relationship between import prices and export cost of production. The evidence of significant short and long-run coefficients of export prices which proxies for exporters' production are an indication that increasing import prices in Nigeria

can be significantly linked to risen of the cost of production in the exporting countries. In a similar development, the positive and significant response of import prices to domestic prices (consumer price index) is also in consonance with economic reasoning. Relatively, risen domestic prices would drive up import demand and consequently import prices.

**Table 4. Empirical Estimates of (ARDL 2, 0, 0, 0, 0)**

	Short-Run Estimates		
	<i>Coefficient</i>	<i>Standard Error</i>	<i>T-Statistics</i>
Constant	5.5395**	2.7875	1.9873
$\Delta \ln MP_{t-1}$	-0.2345***	0.0560	-4.1866
$\Delta \ln NEER_t$	0.1749	0.0634	2.7589
$\Delta \ln XP_t$	0.1031***	0.0485	2.1248
$\Delta \ln CPI_t$	0.1749**	0.0634	2.7589
$\Delta \ln PPI_t$	-0.7135	0.5237	-1.3625
$\Delta \ln OP_t$	0.1563	0.1031	1.5157
$ECM_{t-1}$	-0.3102***	0.0482	-6.4332
Short-Run Estimates			
	<i>Coefficient</i>	<i>Standard Error</i>	<i>T-statistic</i>
Constant	17.8589***	8.5829	2.0807
$\ln NEER_t$	-0.1434	0.1037	-1.3821
$\ln XP_t$	0.5639***	0.2002	2.8162
$\ln CPI_t$	0.3325**	0.1460	2.2767
$\ln PPI_t$	-2.3002	1.6832	-1.3666
$\ln OP_t$	0.5039	0.3149	1.6006
Diagnostic Test Results			
<i>Post Estimation Statistics</i>		<i>Residual-Based Diagnostic</i>	
R-squared	0.7876	Ramsey RESET Test: 0.0088 (0.9252)	
Adjusted R-squared	0.7827	ARCH LM heteroscedasticity test: 1.7915 (0.1355)	
F-statistic	160.0088 (0.000)	Serial Correlation LM test: 7.8315 (0.0316)	
Durbin-Watson Stat.	2.0695		

Note: \*\*\*, \*\* and \* denotes 1, 5 and 10 per cent levels of significance respectively.

Taking cognisance of the fact that the significance and magnitude of the exchange rate pass-through into import price and another chain of prices considered may be sensitive to the channel of transmission. This study further employs TYDL VAR Granger causality test to accommodate this possibility. However, given the sensitivity of TYDL causality testing approach to the choice of lag length, we conducted a series of nested likelihood ratio tests on level VARs to determine the optimal lag length (p) before performing the TYDL causality test. The VAR lag order selection criteria results in Table 5 seems conflicting. To this end, we follow the standard practice in the literature to favour the maximum lag length identified by the following modified LR test statistics.

**Table 5. VAR Lag Order Selection Criteria**

<b>Endogenous Variables:</b> Ln(MP) Ln(XP) Ln(EXR) Ln(CPI) Ln(PPI) Ln(OP)					
<b>Exogenous Variable:</b> C					
Included Observation: 31					
<b>Lag</b>	<b>LR</b>	<b>FPE</b>	<b>AIC</b>	<b>SC</b>	<b>HQ</b>
0	NA	7.31e-07	2.898671	2.972034	2.928018
1	5736.381	3.79e-15	-16.17890	-15.66536*	-15.97347
2	154.2822	2.83e-15	-16.47224	-15.51853	-16.09073*
3	68.66516	2.82e-15*	-16.47633*	-15.08244	-15.91874
4	62.85338	2.85e-15	-16.46477	-14.63071	-15.73110
5	52.69501*	2.99e-15	-16.42095	-14.14671	-15.51120
6	34.40016	3.34e-15	-16.31294	-13.59853	-15.22712
7	45.01984	3.58e-15	-16.24859	-13.09401	-14.98668
8	43.54471	3.84e-15	-16.18251	-12.58776	-14.74453

\* indicates lag order selected by the criterion

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

FPE: Final prediction error

AIC: Akaike information criterion

SC: Schwarz information criterion

HQ: Hannan-Quinn information criterion

To estimate the chosen multivariate VAR(5) model via TYDL causality testing approach, we select two as our maximum order of integration ( $D_{max}$ ), and this is due to the outcomes of our unit root test results. The TYDL VAR causality test results in Table 6 show that exchange rate pass-through to import prices is as high as 7%. But similar to our previous findings, the pass-through is only significant when the causality runs from export prices to import and from exchange rate to export prices. This again further reaffirms our earlier position that there is a significant link between the cost of export production and import prices. The link in this present instance has been proven to be unidirectional as its only run from export to import.

Consequently, the causality shows no significant pass-through from exchange rate to consumer and producer prices, respectively. Rather, it is the oil price that seems to be granger causing consumer prices and producer prices, respectively. Similar to the causal relationship between oil price and export prices, the causality between oil price and consumer prices is bidirectional. This, however, may not be unconnected to the peculiarity of the economy that is under consideration.

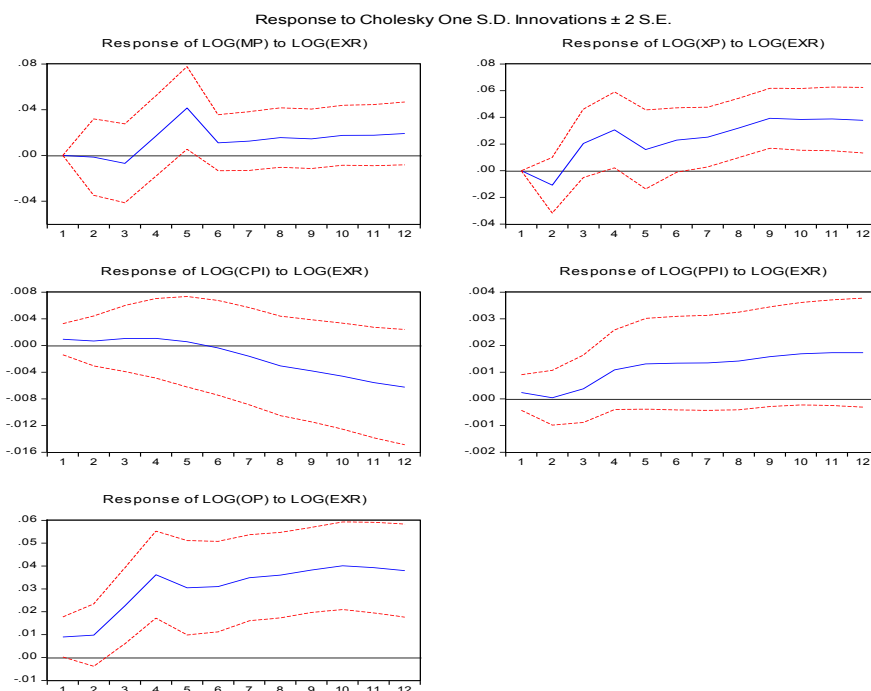
**Table 6. Summary of the TYDL VAR Granger Causality Test Results**

Equation Variable	Equation 2	Equation 3	Equation 4	Equation 5	Equation 6	Equation 7
	<i>Ln(MP)</i>	<i>Ln(EXR)</i>	<i>Ln(XP)</i>	<i>Ln(CPI)</i>	<i>Ln(PPI)</i>	<i>Ln(OP)</i>
<i>Ln(MP)</i>	<i>D. V</i>	2. 0368 (0. 8440)	7. 2726 (0. 2011)	7. 5156 (0. 1850)	1. 0153 (0. 9617)	5. 1895 (0. 3932)
<i>Ln(EXR)</i>	7. 04145 (0. 2176)	<i>D. V</i>	12. 9481** (0. 0239)	3. 0395 (0. 6939)	5. 7049 (0. 3360)	8. 8425 (0. 1155)
<i>Ln(XP)</i>	10. 0132* (0. 0749)	0. 9019 (0. 9701)	<i>D. V</i>	0. 5867 (0. 9886)	3. 2657 (0. 6591)	27. 6031*** (0. 0000)
<i>Ln(CPI)</i>	4. 8645 (0. 4326)	5. 1784 (0. 3945)	7. 7565 (0. 1702)	<i>D. V</i>	0. 7004 (0. 9821)	10. 3843* (0. 0651)
<i>Ln(PPI)</i>	5. 6318 (0. 3437)	1. 1325 (0. 9512)	2. 7776 (0. 7304)	21. 9828*** (0. 0005)	<i>D. V</i>	5. 5581 (0. 3516)
<i>Ln(OP)</i>	4. 5710 (0. 4704)	14. 2214** (0. 0143)	13. 2932** (0. 0208)	13. 2532** (0. 0211)	27. 7921*** (0. 0000)	<i>D. V</i>
<i>ALL</i>	34. 9999* (0. 0882)	29. 9386 (0. 2266)	53. 4566*** (0. 0008)	37. 9675** (0. 0466)	52. 5204*** (0. 0010)	57. 6341*** (0. 0002)

Note: *D. V.* denotes dependent variable and the probability values are in parentheses while \*\*\*, \*\*, and \* indicates significance at 1%, 5%, and 10%.

The Impulse Response Functions (IRFs) represented in Figure 1 is meant to show the response of import prices and another chain of prices included in the model to shocks due to exchange rate pass-through. The impulse response functions (IRFs) shows the effects of shocks on the adjustment path of the variables in the TYDL VAR model. As shown in the figure below, the response of import prices to shocks due to pass-through from the exchange rate remains insignificant in the first and second months. The exchange rate pass-through to import prices becomes

significantly pronounced in the third to the sixth month of the pass-through, and after that responded gradually and persistently up to the 12th month.



**Figure 1. Impulse Response Function**

Consistent with our findings thus far, the response of export cost of production to shocks due to exchange rate movements is mainly positive and significantly pronounced across all the periods considered. Oil prices and consumer prices also responded positively to shocks due to exchange rate movements. Regarding magnitude, however, the pass-through to oil prices seems to be more pronounced. However, consumer prices in the first to fifth months respond positively to the pass-through and then negatively from the sixth month through to the 12th month.

**Table 7. Summary of Variance Decomposition Percentage of 12 Months-Period Error Variance**

Per cent of forecast error variance in:	Typical Shock in					
	<i>Ln(MP)</i>	<i>Ln(XP)</i>	<i>Ln(EXR)</i>	<i>Ln(CPI)</i>	<i>Ln(PPI)</i>	<i>Ln(OP)</i>
<i>Ln(MP)</i>	83. 2764	4. 0790	3. 7129	3. 7129	0. 4044	5. 0519
<i>Ln(XP)</i>	8. 7275	73. 6699	4. 1235	4. 123509	7. 5902	4. 5742
<i>Ln(EXR)</i>	3. 0992	12. 2390	1. 8366	1. 836564	5. 3074	28. 2909
<i>Ln(CPI)</i>	0. 7119	0. 71001	71. 1898	71. 18980	0. 0403	0. 43562
<i>Ln(PPI)</i>	1. 1447	0. 0722	4. 2215	4. 221488	82. 7917	10. 4056
<i>Ln(OP)</i>	3. 0403	9. 2298	14. 9157	14. 91570	3. 8660	51. 2417

Computed by the Author using EViews09

To complement the impulse response results that graphically illustrate the response of import prices to exchange rate movements, we further present the forecast error variance decomposition (FEVD) results. The essence is to understand not just the direction, but also the magnitude of innovation in the import prices that are due to changes in the exchange rate. Thus, the FEV results reported in Table 7 though, attribute 83% of the innovations in import prices to own shocks, yet 8% and 3. 1% of the innovations are due to changes in export prices and fluctuations in the exchange rate, respectively. Next, to the exchange rate pass-through, shocks due to oil prices tend to be responsible for 3% of the innovations in import prices. This suggests that import prices in the context of the Nigerian economy are relatively more sensitive to the export cost of production.

## 6. Conclusion and Policy Prescription

This study investigates the dynamics of exchange rate pass-through in the context of the oil-producing economy (i. e. Nigeria). Methodologically, the study used both single and multivariate approaches to estimate the degree and direction of ERPT. Essentially, it explores the ARDL Bound cointegration approach to explain the short run and long dynamic of exchange rate pass-through into domestic prices of the oil-producing economy. More so, it utilises TYDL VAR Granger causality testing technique to determine the direction and magnitude of the pass-through. Overall, it can be inferred that changes in exchanges rate has little or no significant direct impact on domestic prices in Nigeria. However, as expected of an oil-export dependent economy, the ERPT may yet be significant if the pass-through is the channel through

export prices. Thus, any policy initiative towards mitigating the adverse effects of the pass-through must be wary of which of the price chains that have the potential for accelerating the degree of the pass-through.

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## Quality and Safety Awareness of Ready-To-Eat Foods among Rural Households in Yewa Communities of Ogun State, Nigeria

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**Abstract:** More often than not, intervention programmes of developing nations on access to calorie-based foods against hunger and malnutrition supersede those designed to ensure the quality and safety of food. Thus, advocacy for food adequacy takes pre-eminence over food quality and safety. Food hazards can arise at various stages of the food chain, from primary production to consumption, and climate change may have unpredictable impacts on their occurrences. This study had analyzed the quality and safety awareness of ready-to-eat-foods among rural households in the Yewa communities of Ogun State, Nigeria. It was based on primary data obtained in a cross-sectional survey of 240 respondents drawn by multi-stage sampling technique across ten communities in the study area, using a set of pre-tested structured questionnaire. Data were obtained on households' socio-economic characteristics, their response behaviour to food quality and safety awareness, and food consumption expenditures, and were analysed using simple descriptive tools, probit and ordinary least-square regression techniques. From the results obtained, respondents' mean age, household size and annual income were 41 years, 5 members, and ₦249,167 respectively. 70% of the respondents were male, informally engaged (68%), with an average of 4 years formal education. With respect to food safety awareness, 79%, 76% and 58% of the household heads hardly confirmed expiration dates or damages on food packs, nor followed manufacturers' instructions before consuming packaged foods. Thus, almost 79% of the respondents disagreed that packaged foods were no longer safe for consumption after expiration, but agreed that refrigeration keeps cooked food safe, while 86% of them emphasized the need to ascertain the source(s) of foodstuffs. As for food quality awareness, 91% of the respondents were concerned about the cleanliness of food preparation sites while 98% always examined food packs

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to discover damages on the seal. About 83% of the respondents usually discarded mouldy portions off rotten foods; 61% regularly consumed rotten food so far they were cheap and affordable, while 60% never bothered to pre-taste food leftovers to ascertain their quality status before consumption. Result of the probit regression showed that higher educational attainment (0.049;  $p < 0.05$ ), formal sector job engagement (0.162;  $p < 0.10$ ), household's out-sourced food budget (0.473;  $p < 0.05$ ) and foodstuff importation practices (0.413;  $p < 0.05$ ) increased the probability of household being conscious of safety practices on foods consumed away from home, while spouses' income (-0.573;  $p < 0.01$ ) and large healthcare budget (-0.386  $p < 0.01$ ) decreased it. Factors that enhanced households' consumption expenditure on packaged foods include increased household head income (0.692;  $p < 0.01$ ), large household size (0.204;  $p < 0.05$ ), educational attainment (0.359;  $p < 0.01$ ) and the proportion of infants in the household (0.398;  $p < 0.01$ ). Prioritising intervention programmes to promote higher educational attainment and access to formal-sector employment opportunities were recommended to increase quality and safety consciousness of the rural households to packaged foods.

**Keywords:** Food quality; Safety awareness; Ready-to-eat food; Rural households; Nigeria

**JEL Classification:** I31; O13; Q18

## 1. Introduction

Food is any substance which when consumed provides nutritional support for the body. It may be of plant or animal origin, containing the known five essential nutrients namely, carbohydrates, fats, proteins, vitamins and minerals. Usually after consumption, food undergoes different metabolic processes that eventually lead to the production of energy, maintenance of life, and/or stimulation of growth (Angelillo et al., 2001). The history of early man shows that, people obtained food substances through hunting, gathering, and agriculture. The assurance and protection of food quality has always been important to man. Right from the garden of Eden, there was a law guiding the consumption of food, and in our time too, governments over many centuries have endeavored to make provisions for the safety and wholesomeness of man's food through legal means (Jango-Cohen, 2005; Ismail et al., 2001).

The term 'ready-to-eat-food' is referred to as food and beverages prepared, packaged and sold by vendors on the streets or at other public places, which are either consumed on the spot or taken away for consumption at a later time without further processing, cooking or preparation (WHO, 1996; Badrie et al., 2006). However, the terms 'ready-to-eat-food', 'food-away-from-home' and 'packaged foods' are used interchangeably in this study since in many cases, such foods (especially when purchased on the streets) are often not consumed on the spot but are taken back home or to the work place for consumption. In that sense therefore, even if such packaged, ready-to-eat-foods are purchased away from home but taken back home for consumption, it is still regarded as food-away-from-home in this study.

The commitment of most local economies at promoting industrial development projects had brought about new systems of employment and engagements, with people increasingly working far away from home thereby making the demand for ready-made, packaged food products almost inevitable (Aygen, 2012). Food vendors

are noted for selling foods and drinks at reduced prices, so providing more affordable means for people to obtain nutritionally balanced meals outside the home (Li-Cohen & Bruhn, 2002). Convenience curbside products consumed away-from-home are now responsible for up to ten percent of total sales for some establishments in the more advanced developed nations (Rimal et al. , 2001). In essence, “restaurants have become places to purchase food to eat somewhere else” (Food Institute Report, 2007).

Although street foods have become an indispensable part of both urban and rural diets, some public health risks are associated with the consumption of street food in developing countries. While it is expected that street food meets the nutritional needs of consumers, it is also necessary to ensure its safety from contamination by microorganisms (Chakravarty, 2001). As consumers’ demand for food-away-from-home increases annually, with it arises several concerns about public knowledge of safe food handling behavior of the producers. For instance, Binkley and Ghiselli (2005) reported that increased demand in food-away-from-home is accompanied by the increasing risk of food borne illnesses. In spite of proper sanitary practices by food service personnel, once packaged food has left the establishment, consumers must rely on their own food safety knowledge and the integrity of the packaging agent to prevent contamination of the product.

Food quality and safety are twin-terms that describe the totality of the food characteristics that bear on their ability to satisfy all legal, customer and consumer requirements (Will & Guenther, 2007). Food safety is a scientific discipline describing the handling, preparation and storage of food in a way that prevents food-borne diseases. It is defined as the degree of confidence that food will not cause sickness or harm to the consumer when it is prepared, served and eaten according to its intended use (FAO/WHO, 2003; Binkley & Ghiselli, 2005). In related term, food safety has been defined by FAO/WHO (2001) as the assurance that food will not cause any harm to the consumers when taken in its current state and as it is. To this extent, the World Health Organisation (WHO) recognized food safety as an essential public health issue requiring top priority in the policy agenda of various relevant government agencies and thus adopted the Global food safety strategy (WHO, 2002).

Food quality includes all attributes of food products that influence their value and acceptability to customers, while food safety includes all measures intended to protect human health upon food consumption (Nelson, 2005). Climate change and variability, socio-economic and technological development, urbanization and agricultural land use are among the multiple factors that can provoke changes in the nature and occurrence of food safety hazards. These hazards can arise at various stages of the food chain, from primary production to consumption, and climate change may have direct and indirect impacts on their occurrences. It is the probability of a consumer not contacting a disease as a direct consequence of

consuming certain food products. Previous studies (e. g, Mederios et al. , 2001) have proved that packaged foods can be mishandled at a number of places during food preparation, handling and storage, and consumers have inadequate knowledge of the required measures for preventing food borne diseases in the home.

According to Mederios et al. , (2001), many cases of reported outbreaks of food borne diseases in homes have been caused by contaminated raw foods, inadequate cooking, and consumption of food from unsafe sources. To corroborate this fact, a study by Redmond and Griffith (2002) show that consumers have inadequate knowledge about measures needed to prevent food borne illnesses in the home and hence, between 50% and 87% of reported food borne disease outbreaks in homes have resulted from severely contaminated raw foods and consumption of food from an unsafe sources.

In the face of widespread poverty and malnutrition in developing countries, programs directed towards the promotion of adequate access to food calorie needed to minimize hunger and malnutrition have precedence over those designed to ensure wholesomeness and quality of food. This study therefore aims at assessing the response behaviour of members of the rural households to quality and safety awareness of ready-to-eat foods in selected communities in Ogun State, Nigeria, and also determined the extent of consumers' acclaimed consciousness towards safety practices of packaged food products among the rural households.

## **2. Conceptual Framework**

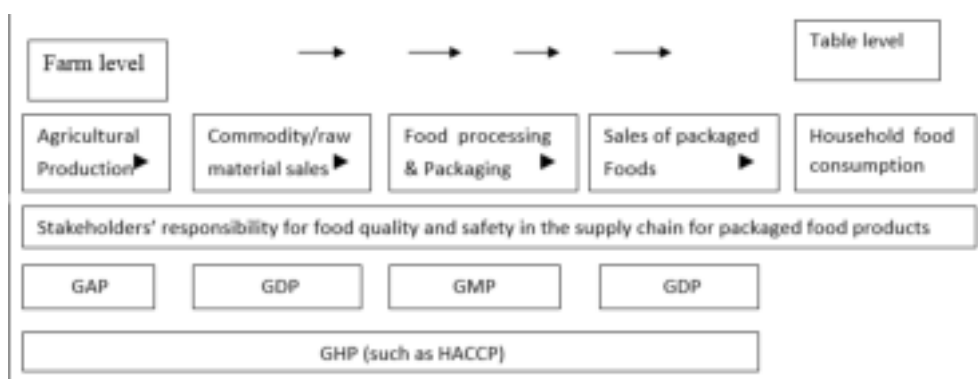
### **2.1. The Supply Chain for Packaged Foods**

As highlighted in figure 1, every stakeholder in the food supply chain has to apply good and standard practices which eventually culminate into food quality and safety. The food chain in this context refers to the full range of activities that all concerned stakeholders do to bring a product (the packaged, ready-to-take food) from its conception to its end users. Stakeholders in this food supply chain are the chain operators (including the farmers, the food processors, the middlemen, and the consumer); the chain supporters (the service providers); and the chain enablers (the policy makers and food regulatory agencies). The primary responsibility for the safety of packaged foods therefore lies with the farmers who produce the raw foodstuffs, the processors, the distributors (dealers in foodstuffs) and the final consumers (household members in this case) (WHO, 2002).

As expected, farmers and processors at the primary level must be willing to adopt Good Agricultural Practice (GAP); sellers of foodstuffs and other middlemen must be willing to adopt Good Distribution Practices (GDP) while manufacturers must adopt Good Manufacturing Practices (GMP). All these individual best practices

when put together represent Good Hygiene Practices (GHP) which are very key to achieving Hazard Analysis and Critical Control Points (HACCP) standards in the farm-food industries. Generally, successful application of the HACCP principles has suffered a lot of setbacks in many developing economies due to the well segregated and numerous informal food markets (Nwagi et al. , 2000). According to World Bank (2005), there is very minimal awareness and application of basic hygienic practices among local food handlers (the farmer, the processor, and the various distributors) and the ultimate consumers.

Farmers, being a key food supply chain operator, ensure food quality and safety by choosing the approved best practices to produce foodstuffs that serve as raw materials in producing packaged/ready-to-eat foods, as required by GAP. These best practices are in the areas of choosing the right seed, good land cultivation and management practices, good weed, pest and disease control practices, among others. Food processors in Ogun State must be willing to adopt good manufacturing practices (GMP) through proper raw material handling and control. Uniform and accurate weights and measures of food ingredients are very essential to trade with goods (Lasztity et. al. , 2004), and as indicated in recipes, these affect the quality and safety of processed and packaged foods. Both the small-holder farmers and processors are often supported financially by their self-help cooperative organizations and micro-finance institutions within their localities.



**Figure 1. Food Supply Chain from Farm Level to Table Level**

*Source: Adapted from Will and Guenther (2007) and modified to suit this study*

Consumers are involved in the food supply chain by virtue of appropriate product selection and purchase, product storage, preparation, consumption and proper disposal of household waste (Will & Guenther, 2007). Customers in Nigeria (and particularly Ogun State in this case) are expected to ensure that factory-manufactured packaged, ready-to-eat food products meet the minimum safety standards as required by the Standards Organisation of Nigeria (SON) and the National Agency for Foods, Drugs Administration and Control (NAFDAC). As is obtained in many developed

countries of the world, these organizations aim to protect consumers against unfair trade practices and purchase of unsafe or sub-standard food products. This participatory role in enforcing the safety rules they enforce by taking their time to read and understand the labels on the packaged food products to confirm that the ingredients used are right and health friendly, and that the content is not expired as at the time of purchase and consumption. Customers should also look for stated directions on any preliminary steps/precautions to take in case of damages noticed on the seal or pack, or suspected poisoning arising from consumption of contaminated food products.

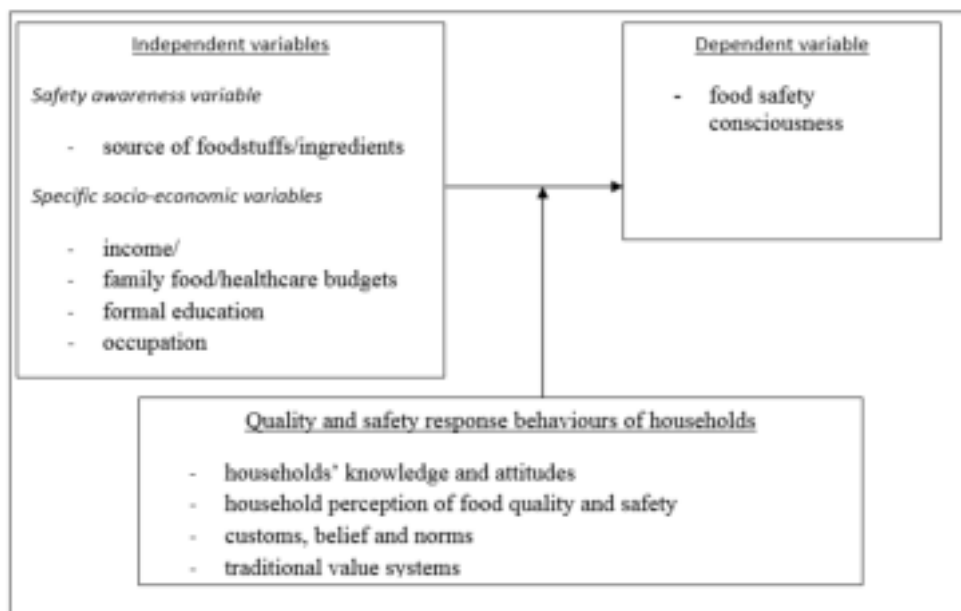
The role of government and other regulatory agencies as the chain enablers include enforcing the right environment for safe and standardized food products to thrive through their various political, economic and legislative intervention frameworks. These ensure proper regulation of other food supply chain operators in the economy. Agencies of the Nigerian government in this regards include the Standards Organisation of Nigeria (SON) and the National Agency for Foods, Drugs Administration and Control (NAFDAC) working hand-in-hand with the relevant law enforcement agencies, such as the Nigeria Police, the Nigerian Civil Defence Corps (NCDC) and the health-sector workers. Also in the category of food chain enablers are the various public educational institutions such as Universities, Polytechnics, Colleges of Education, Technical Colleges and Institutes saddled with the responsibilities of training students in Food Science and Technology at degree, diploma, certificate and vocational levels. Such institutions in Ogun State within the reach of household members in the study area include Federal University of Abeokuta and the Yewa Campus of Olabisi Onabanjo University specifically running degree programmes in Home Science and Hospitality Management with speciality in Food Sciences. Others are Federal College of Education, Abeokuta, and the Federal Polytechnics, Ilaro.

## **2. 2. The Food Quality and Safety Interdependence Framework**

According to the WHO (2000)'s global food safety strategy, traditional food safety management systems have not been effective in preventing food-borne diseases in many developing economies over some decades. The required strategy therefore, is the adoption of policies that advocate food safety programmes based on a broader science-based concept of risk assessment, risk management through process controls along the entire production chain and risk communication. This is a farm to table approach that involves considerations of every step in the food value chain, the entire community and all actors in the food industry, including the farmers, food processors, and farm produce/product distributors until it gets to the final consumers. This strategy also advocates sustainable agriculture production systems and redirection of some of the existing approaches to ensure they meet the challenges of global food safety practices as provided by WHO (2002). This food safety



interdependence framework was developed from reviewed literature on knowledge of food safety standards and practices as illustrated in figure 2.



**Figure 2. The Food Quality and Safety Interdependence Framework for Ready-to-Eat Foods Products**

*Source: Adapted from Kioko (2012) and Modified to for this study*

### 3. Research Design and Method

#### 3.1. The Study Area

This study was carried out in the Yewa division of Ogun State, Nigeria, comprising of five (5) local government areas namely Yewa North (<sup>1</sup>Ayetero), Yewa South (Ilaro), Imeko/Afon (Imeko), Ipokia (Ipokia) and Ado-Odo/Ota (Ota). Ogun State is in the South-West rain forest zone of Nigeria, lying within latitude 6. 2<sup>0</sup>N and 7. 8<sup>0</sup>N and longitude 3. 0<sup>0</sup>E and 5. 0<sup>0</sup> E. The two local government areas border the Republic of Benin in the West, with their headquarters towns at Ilaro and Ipokia, respectively. The major crops grown among the Yewa communities are cassava, yam, maize, melon, cocoyam, spices, vegetables and fruits, as well as cocoa, oil palm, and kola nut. Common livestock are also reared such as goat, sheep, poultry, and cattle.

<sup>1</sup> The headquarter town of each of the five LGAs is in parenthesis

### **3.2. Data Type, Data Source and Data Collection Technique**

A multiple-item written questionnaire was modified following the version adopted by Nurhan (2007), and minor modifications were made on the set of questions after they were pilot-tested on few household heads randomly selected from a section of the study area. The final version captured questions that bordered on demographic factors, food quality and safety behaviors, and food quality and safety awareness of the targeted respondents. Primary data were collected from household heads with the aid of the pre-tested questionnaires. Household heads were targeted because they were in position to provide information on the food consumption pattern of other members of the households being the bread winner. Specific information were obtained from the respondents on the quality and safety of the packaged food that were prepared outside the homes for either home or out-of-home consumption, as well as the extent of consumption of those food types.

### **3.3. Sampling Techniques**

A multiple-stage sampling technique was employed in selecting the respondents. At the first stage, two of the five local government areas (LGAs) in the division were purposefully selected on the basis of their possession of characteristics capable of promoting the prevalence of food-away-from-home/package foods in a community. Notable among such characteristics is the availability of higher institution of learning in the headquarter town of both LGAs (a campus of the Olabisi Onabanjo University situated at Ayetoro and the Federal Polytechnics located at Ilaro) which promotes the concentration of undergraduate students in the two towns and their neighbouring communities. At the second stage, five (5) major communities were randomly selected in each of the two local government areas, namely Ayetoro, Igbogila, Ibooro, Sawonjo and Saala-Orile in Yewa North LGA; and Ilaro, Owode, Erinja, Oke-Odan, and Ajilete in Yewa South LGA. At the third stage, five (5) housing units (HUs) were selected in each of the towns, from which five (5) households were drawn per HU in the final stage. Thus, a total of 250 household heads were sampled from the study area but in all, a total of ten questionnaires were not discarded for incomplete information.

### **3.4. Estimation Procedures**

#### **3.4.1. Response behaviour of rural households to quality and safety practices of packaged foods**

Descriptive tools were employed to analyse the response behaviour of household heads to food quality and safety practices. Household heads were asked to respond to pre-tested questions reflecting their knowledge, attitudes and behaviours to food quality and safety practices, using a calibrated scale 1–5. For food quality and safety awareness, the scale used was: 1= “always, 2= “occasionally”, 3= “rarely,” 4= “never”. For food safety practice knowledge, the scale was constructed thus: 1 =

“strongly agreed”; 2 = “agreed”; 3 = “indifferent”; 4 = “disagreed”; and 5 = “strongly disagreed”.

### 3.4.2. Determinants of household’s consciousness of the safety status of packaged foods

The factors affecting the extent of households’ consciousness about food safety status were analyzed using the probit model. The probit model is a discrete choice model, the parameters of which are nonlinear. The objective of this model was to relate the choice probability  $P_i$ , which is the dependent variable, with the hypothesized explanatory variables in such a way that  $P_i$  will be 0 or 1. In the probit model, a benefit index  $I_i$  was developed for each observation, thus:

$$I_i = \beta_1 + \beta_2 x_{i2} + \dots + \beta_k x_{ik} \quad (1)$$

By implication, the higher the value  $I_i$ , the higher the benefit obtained by the  $i$ th individual for the choice of  $y_i = 1$ . The general form of the probit model is presented thus:

$$P_i = F(I_i) = F(\beta_1 + \beta_2 x_{i2} + \dots + \beta_k x_{ik}) = F(x_i' \beta) \quad (2)$$

where  $P_i$  = household head’s food safety consciousness ( $P_i=1$  if household head is food safety conscious; 0 otherwise). The concern of the  $i$ th household head for food safety practices is as stated in a simple ‘yes’ or ‘no’ response to the question of whether or not the respondent is often conscious of some stated minimum best practices with regards to the safety of foods consumed away from home.

$F(I_i)$  is the cumulative probability function of the standard normal (0,1) random variable  $I_i$ .

$\beta_i$  = regression coefficients ( $i=1, 2, 3\dots 12$ )

$x_i$  = independent variables ( $i=1, 2, 3\dots 12$ ) hypothesized to influence the  $i$ th household head’s

stated concerned for the safety of foods consumed away from home, where:

$x_1$  = income of household head (N/annum)

$x_2$  = income of spouse (N/annum)

$x_3$  = age of household head (years)

$x_4$  = gender of household head (male = 1, female= 0)

$x_5$  = type of occupation of household head (formal sector job = 1, 0 otherwise)

$x_6$  = household size (number)

$x_7$  = years of formal education of household head

$x_8$  = years of formal education of spouse

$x_9$  = household budget on health care (₦/annum)

$x_{10}$  = household budget on food (₦/annum)

$x_{11}$  = number of household members aged 60 years and above

$x_{12}$  = number of household members aged 12 years and below

$x_{13}$  = source of foodstuffs/ingredients (1 if imported, 0 otherwise)

#### 3.4. Consumption pattern of packaged foods among sampled households

Multiple regression analysis was used to determine the pattern of consumption of packaged foods among the surveyed households. The consumption model is thus specified:

$$Y_i = f(\beta_i X_i) + \mu_i \quad (3)$$

where:

$Y_i$  = household's consumption expenditure on packaged foods (₦/annum)

$X_1$  = income of household head (₦/annum)

$X_2$  = income of spouse (₦/annum)

$X_3$  = gender of household head (1 = male; 0 otherwise)

$X_4$  = age of the household head (year)

$X_5$  = household size

$X_6$  = years of formal education of household head

$X_7$  = years of formal education of spouse

$X_8$  = number of household members aged 60 years and above

$X_9$  = number of household members aged 12 years and below

$X_{10}$  = primary occupation of household head (non-farming =1, otherwise =0)

$\mu$  = error term

## 4. Results and Discussion

### 4.1. Socio-economic characteristics of the sampled rural households

The socio-economic characteristics of the sampled respondents were as presented in Table 1.

**Table 1. Distribution of Respondent Household Heads by Socio-Economic Characteristics**

Characteristics	Frequency	Relative percentage
<i>Age (household head)</i>		
< 30	74	30.83
30 – 60	156	65.00
> 60	10	4.17
<i>Total</i>	<i>240</i>	<i>100.00</i>
		<i>(Mean age: 41 years)</i>
<i>Gender</i>		
Male	168	70.00
Female	72	30.00
<i>Total</i>	<i>240</i>	<i>100.00</i>
<i>Type of job engagement</i>		
Formal sector	78	32.50
Informal sector	162	67.50
<i>Total</i>	<i>240</i>	<i>100.00</i>
<i>Education</i>		
No formal education	36	15.00
Primary education	130	54.17
Secondary education	70	29.17
Tertiary education	4	1.67
<i>Total</i>	<i>240</i>	<i>100.00</i>
		<i>(Average years of schooling: 4 years)</i>
<i>Annual household income (€)</i>		
< 200,000	138	57.50
200,000 - 400,000	86	35.83
>400,000	16	6.67

<i>Total</i>	240	100.00 (Mean annual income: ₦249,167)
<i>Household size</i>		
< 3	72	30.0
4-6	134	55.83
> 6	34	14.17 (Mean household size: 5)
<i>Total</i>	240	100.0

Source: computed from field survey, 2015

From the result, the mean age, household size and household income were 41 years, 5 members and ₦249,167 per annum, respectively. Seventy percent (70%) of the respondents were male, majority of whom had a maximum of primary school education, and mainly engaged in informal sector jobs, mainly crop farming.

#### 4.2. Response Behaviour of Household on Food Safety Awareness

Table 2 showed the responses of the respondents with respect to their household's behaviour towards food quality awareness. It is very obvious from the table that majority of the sampled respondents paid attention to the safety status of packed/package foods. About 79% of the household heads hardly bothered to check the expiration date before purchasing packaged foods to ascertain that the commodities were still safe for consumption while as much as 76% of them rarely checked to detect damages on food packs before purchase or consumption. However, about 58% of the respondents hardly followed manufacturers' instructions on food packs before consumption. These results are in consonance with the findings of Meer and Misner (2000) and Cody and Hogue (2003).

**Table 2. Response behaviour of household to the safety of packaged foods**

Purchasing behaviour of household to food safety awareness	Always	Occasional	Rarely	Never
Expiration dates on packaged foods are checked before purchases are made	8 (3.3%)	42 (17.5%)	175 (72.9%)	15 (6.3%)
Food packs/cans are checked if they have been pre-opened or damaged before purchases are made	42 (17.5%)	16 (6.7%)	182 (75.8%)	0 (0%)
Manufacturers' instructions on food packs are followed in product consumption	18 (7.5%)	84 (35%)	118 (49.2%)	20 (8.3%)
Only packed/package foods that are free from preservatives/artificial colouring are patronised	124 (51.7%)	48 (20.0%)	58 (24.2%)	10 (4.2%)

Unfinished packaged foods are preserved to prevent deterioration	112 (46.7%)	56 (23.3%)	44 (18.3%)	28 (12%)
Attentions are given to the hygiene of the places where prepared foods are purchased for home consumption	224 (93.3%)	16 (6.7%)	0 (0%)	0 (0%)
Attentions are given to the odour, colour and general appearance of packed foods before buying/eating	150 (62.5%)	58 (24.2%)	18 (7.5%)	14 (5.8%)

*Source: computed from field survey, 2015*

*(Figures in parentheses are the relative percentages)*

Almost 52% of the respondents always made sure that the packed/packageged foods they patronised were free from artificial pigments, while about 28% hardly bothered about this. Almost 70% of the respondents regularly preserved unfinished packaged foods to prevent deterioration while about 87% of them paid adequate attention to the odour, colour and general appearance of packed/packageged foods before they were bought/eaten.

#### **4.3. Response behaviour of household on food quality awareness**

Table 3 summarizes the responses of the respondents with regard to the safety rules of handling packaged foods. Most of them cared about the general hygiene rules for preparing foods they would like to patronise (as observed by Jevšnik et al. , 2008). About 91% of the respondents always checked the cleanliness of the surfaces where packaged foods were prepared while 7. 5% of them do so occasionally. Nearly all (about 98%) of the respondents always examined food packs to ensure they were not partially opened or damaged before they are purchased. However, only a handful of the respondents cared about the quality state of the packaged foods they consumed. For instance, from Table 3, it is revealed that as much as 83. 4% of the respondents would only scrap or cut off the mouldy portions of rotten foods and then consume the unaffected portion; 60. 8% of them regularly consumed rotten food ingredients as long as they were cheap and affordable to them; and yet about 60% would not bother to pre-taste food leftovers to ascertain their quality status before they were consumed.

**Table 3. Response behaviour of household to food quality awareness**

Response behaviour of household to food quality status	Always	Occasionally	Rarely	Never
The hygiene of the surfaces where home foods are prepared is of utmost importance to my household	218 (90.8%)	18 (7.5%)	4 (1.7%)	0 (0.0%)
Rotten food ingredients are consumed so far they are cheap	24 (10.0%)	122 (50.8%)	64 (26.7%)	30 (12.5%)
Food packs are examined to ensure they are not pre-opened or damaged	234 (97.5%)	6 (2.5%)	0 (0.0%)	0 (0.0%)
Unaffected part of rotten foods are consumed after throwing away the mouldy portion	8 (3.3%)	32 (13.3%)	46 (19.2%)	154 (64.2%)
Food leftovers are tasted to ascertain safety before further consumption	26 (10.8%)	72 (30.0%)	60 (25.0%)	82 (34.2%)
Foodstuffs are stored away from contaminants	212 (88.3%)	20 (8.3%)	0 (0.0%)	8 (3.3%)

*Source: computed from field survey 2015*

*(Figures in parentheses are the relative percentages)*

#### 4.4. Response behaviour of households on food safety practices

Table 4 presents the responses of the surveyed households with respect to knowledge of food safety practices in the study area. The stated responses showed mixed positions of the household heads on the knowledge of food safety practices. Forty-five percent of them were indifferent as to the fact that fresh foodstuffs are safer than frozen ones even if they are more costly. About 79% of the respondents disagreed that packaged foods are no longer safe for consumption once the expiry date lapses as indicated on the labels. This result further corroborates the likely disregards of the surveyed households to the safety status of packaged foods with respect to safety instructions contained on the foods labels (such as food expiration and damages on seals) as reported on Table 2.



**Table 4. Response behaviour of households on knowledge of food safety practices**

<b>Food safety knowledge</b>	<b>Strongly agreed</b>	<b>Agreed</b>	<b>Indifferent</b>	<b>Disagreed</b>	<b>Strongly disagreed</b>
Freezing foods kills germs that may cause illness	118 (49.2%)	46 (19.2%)	16 (6.7%)	50 (20.8%)	10 (4.2%)
Fresh foods are safer than frozen ones even if they are more costly	4 (1.7%)	62 (25.8%)	108 (45%)	54 (22.5%)	12 (5.0%)
Refrigeration helps to keep cooked foods safe and prolonged	116 (48.3%)	112 (46.7%)	12 (5.0%)	0 (0.0%)	0 (0.0%)
Packaged foods are no longer safe for consumption once the indicated expiry date lapses	36 (15.0%)	10 (4.2%)	0 (0.0%)	190 (79.2%)	4 (1.7%)
Food contaminants may introduce toxins to the body system	104 (43.3%)	112 (46.7%)	22 (9.2%)	2 (0.8%)	0 (0.0%)
To curb obesity it is safer to avoid packaged foods with high calorie content	60 (25.0%)	150 (62.5%)	30 (12.5%)	0 (0.0%)	0 (0.0%)
Washing hands before and after eating reduces the incidence of disease attack	162 (67.5%)	78 (32.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Packaged foods must be examined before they are opened	138 (57.5%)	82 (34.2%)	8 (3.3%)	8 (3.3%)	4 (1.7%)
It is very important to ascertain the source(s) of foodstuffs	132 (55.0%)	72 (30.0%)	16 (6.7%)	16 (6.7%)	4 (1.7%)

*Source: computed from field survey 2015*

*(Figures in parentheses are the relative percentages)*

However, most of the respondents (95%) alluded to the fact that refrigeration helps to keep cooked food safe always, corroborating the findings of Lando & Fein (2007) and Odwin & Badrie (2008). Similarly, 87.5% of the respondents agreed that it is safer to avoid packaged foods with high calorie content in order to curb obesity. All the respondents agreed that washing of hands before and after eating reduces the incidence of disease attack. Majority (85.5%) of the respondents also emphasized on the need to ascertain the source(s) of all foodstuffs, especially packaged/frozen foods. This confirms the study by Knight et al. (2003) that most customers would prefer supermarkets items because of the multiple shopping choices, ambiance, and easier personal inspection these facilities provide.

#### 4.5. Determinants of household's consciousness of the safety status of packaged foods

As evidence from previous studies (e. g Van Kleef et al. , 2006), demographic factors of the respondents namely household income, primary education of the household head, levels of education, as well as households' budgets on healthcare and packaged foods influenced the extent of consumer safety consciousness of packaged foods in the study area (Table 5).

**Table 5. Factors influencing household's safety consciousness of packaged foods**

Variable	Coefficient	Standard error	t-value
Income (household head)	0. 704	0. 4432	1. 588
Income (spouse)	-0. 5732***	0. 2090	-2. 743
Age (household head)	-0. 285	0. 5258	-0. 001
Gender (household head)	-0. 1072	0. 1612	-0. 665
Primary occupation (household head)	0. 1618*	0. 0867	1. 866
Household size	-0. 2828	0. 2426	-1. 166
Education (household head)	0. 0493**	0. 0221	2. 230
Education (spouse)	-0. 6948	0. 7341	-0. 946
Household budget on health care	-0. 3862***	0. 1170	3. 300
Household budget on food away-from-home	0. 4727**	0. 2096	2. 255
Aged adults in the household	-0. 3226	0. 9859	-0. 327
Children/infants in the household	-0. 1069	0. 4033	-0. 265
Source of foodstuffs	0. 4179**	0. 2013	2. 085

*Source: computed from field survey 2015*

\*\*\*, \*\*, and \* = coefficient is significant at 1%, 5%, and 10%, respectively

As shown on Table 5, higher educational attainment (0. 049;  $p < 0. 05$ ), engagement in formal sector employment (0. 162;  $p < 0. 10$ ), household's out-sourced food budget (0. 473;  $p < 0. 05$ ) and the fact that foodstuff/ingredients used in preparing the food were not sourced locally (0. 418;  $p < 0. 05$ ) would increase the probability of household being conscious of the safety practices on foods consumed away from home as previously discovered in the previous studies of Mason (2001) and Bernudez-Milan et al. (2004). A number of studies have canvassed for the need to sustain consumers' education efforts on the hazards of improper food handling (e. g, WHO, 2000; Li-Cohen & Bruhn, 2002; Mitakakis et al. , 2004; Finch and Daniel, 2005). On the contrary, households in which the spouses also earn income (-0. 573;  $p < 0. 01$ ) and those with high healthcare budget (-0. 386;  $p < 0. 01$ ) would likely be less concerned with safe food practices possibly due to the enhanced capability of the household to cope with the risk of disease attack resulting from food contamination, as confirmed by Acebrón & Dopico (2000).

#### 4.6. Food Consumption Pattern of Packaged Food Among the Rural Households

Table 6 presents the result of the ordinary least-square regression of the factors that determine the consumption pattern of packaged foods among the surveyed households.

**Table 6. Consumption Pattern of Packaged Foods Among Rural Households**

Variable	Coefficient	Standard Error	t-value
Income of household head	0. 692***	0. 210	3. 295
Income of spouse	-0. 066	0. 685	-0. 096
Gender (household head)	-0. 001	0. 006	-0. 166
Age (household head)	-0. 123	1. 470	-0. 084
Household size	0. 204**	0. 101	2. 020
Education (household head)	0. 359***	0. 120	2. 992
Education (spouse)	0. 141	1. 429	0. 099
Aged adults in the household	0. 169	1. 213	0. 139
Children/infants in the household	0. 398***	0. 140	2. 843
Primary occupation (household head)	-0. 052	0. 577	0. 090
<i>R-Square value</i>	<i>0. 873</i>	<i>1. 416</i>	<i>0. 617</i>
<i>Adjusted R-Square value</i>	<i>0. 815</i>	<i>1. 402</i>	<i>0. 581</i>

Source: computed from field survey 2015

\*\*\*, \*\*, and \* = coefficient is significant at 1%, 5%, and 10%, respectively

As *a priori* expected, increased income of the household head (0. 692;  $p < 0. 01$ ), large household size (0. 204;  $p < 0. 05$ ), higher educational attainment (0. 359;  $p < 0. 01$ ) as well as having large numbers of infants as household members (0. 398;  $p < 0. 01$ ) would increase the consumption expenditure of households in the study area. This result is corroborated by the empirical finding of Barclay *et al.* (2001) that educational efforts will support safe and quality food consumption at home and, thus, the continued nourishment and good health status of consumers in the home.

#### 5. Conclusion and Recommendations

This study had analyzed the quality and safety awareness of food-away-from-home among rural households in the Yewa communities of Ogun State, Nigeria using 240 respondents. A survey of the respondents' response behaviour on food quality and safety awareness showed that majority of the sampled respondents paid attention to the safety status of packed/packaged foods. While about 79% of the household heads were not bothered to check the expiration date before purchasing packaged foods, 76% of them hardly confirmed if food packs were damaged before they purchased or consumed packaged foods. Yet about 58% of the respondents hardly followed

consumer's instructions on food labels before they were consumed. About 91% of the respondents were regularly concerned about the cleanliness of the food packaging environment; many were indifferent for mouldy foods, and about 60.8% consumed rotten food ingredients as long as they were cheap and affordable.

Based on the findings of the study, the following recommendations were made, namely:

1. Since higher educational attainment would enhance the safety awareness for packaged foods, access of household members to school should be given much priority. Such educational efforts (as earlier argued by Meer & Misner, 2000) will support safe food handling at home and, thus, the continued independence of consumers in their homes.
2. Access of members of the rural households to formal employment opportunities would be also emphasized in order to enhance their income generation capability, which will help them handle household health risks that may be associated with consumption of unhygienic food products.

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## **Audit Quality and Corporate Governance as Determinants of Banks' Performance in Ghana**

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**Abstract:** The debate on the impact of audit quality on firm value and how corporate government moderate this relationship has surfaced as a result of numerous corporate scandals. As a result, the study examined the impact of audit quality on firm value and how corporate governance moderate this relationship. The study used the annual reports of 36 Ghanaian banks from 2010 to 2017. A random effect regression model was used to estimate the relationships. The results revealed that audit quality have a positive impact on the value of a firm. Thus, the engagement of the services of the Big 4 audit firms contribute to the increment of the value of the firms. In addition, the existence of effective corporate governance improves the relationship between the audit quality and the value of the firms. Corporate governance therefore facilitates improved moderation of the relationship between audit quality and the value of firms.

**Keywords:** Corporate governance; audit quality; firm value; banking sector

**JEL Classification:** M40

### **1. Introduction**

The banking sector has contributed significantly towards the economy in a number of developing countries. For example, the Ghana Statistical Service (2017) reported that in the year 2017, the banking sector contributed approximately 9.4% to the Ghanaian gross domestic product (GDP). However, since the year 2013, there have been sustained challenges in the banking sector in Ghana. The collapse of DKM, a microfinance institution in Ghana during the year 2015 resulted in the loss of millions of dollars of depositor's monies. The Bank of Ghana (BoG) and other stakeholders had hardly come in terms with the collapse of the institutions when two other commercial banks, UT Bank and Capital Bank had their licenses revoked by the Bank of Ghana in the year 2017. At the insistence of the regulator, these banks

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were acquired by another bank, 'gcb Bank'. Five additional commercial banks collapsed eight months later in the year 2018. The Government of Ghana established another bank to assume all the liabilities and assets of these five banks. The Government of Ghana (GoG) reported that these activities cost the state approximately 2.2 billion dollars (Ministry of Finance, 2018).

Since the banking sector occupies a key role in stimulating the economic and entrepreneurial development of a nation, the collapse of these banks affected the Ghanaian economy. Consequently, the Government of Ghana and other stakeholders undertook to ascertain the causes of these banking failures. As a result, an auditing firm, KPMG was tasked to investigate what might have accounted for the collapse of the banks. The KPMG Report (2018) documented several factors including related party transactions, managerial incompetence, disregard to banking laws and reporting irregularities as the major causes of the collapse of the banks. All these points to weak or lack of good corporate governance practices in these banks. These findings opened a debate on the role of auditors in all these corporate failures. The debate was motivated by previous corporate failures such as Enron and WorldCom. The collapse of these multinational corporations was attributed to reporting and auditing scandals that eventually brought governance and audit quality into the spotlight (Salehi, Moradi and Paiydarmanesh, 2017).

Since external auditors and good corporate governance ensure financial reporting quality, reduction in agency cost that arise from the opportunistic behaviour of managers and reduction in information asymmetry, the question was posed of whether external auditing would be necessary if it failed to detect these corporate scandals. The concern is justified because users of financial statements resort to the audit reports when they are doubtful about the reliability of the financial statements produced by a firm (Aobdia, 2019). Despite the foregoing, previous studies have provided evidence on the impact of audit quality on the performance of firms, however, the results were inconclusive and conflicting. There are studies that reported that the quality of external auditing contributes significantly to the performance of firms (Zureigat, 2010; Chen, Chen, Lobo & Wang, 2011; Hassan & Farouk, 2014; Matoke & Omwenga, 2016; and Smii, 2016). These authors explain that quality auditing provides assurance to the various stakeholders as well as offer valuable advice to businesses which eventually results in improved performance. Conflicting these results, Sulong, Gardner, Hussin and Sanusi (2013); Rahimi and Amini (2015); and Elewa and El-Haddad (2019) provided evidence that audit quality had no or negative impact on the performance of firms. According to these authors, audit quality instead drains the resources of firms, especially when firms engage the services of prominent auditing firms which requires the payment of high auditing fees.



Whilst the debate on the impact of audit quality on firm performance is yet to be concluded, there are others that have found that the study of the relationship between audit quality and firm performance without examining the moderating role of corporate governance in their relationship is subject to spurious conclusions. This is because corporate governance is noted to have significantly created changes in contemporary business environments, particularly in the accounting and auditing professions (Inaam & Khamoussi, 2016 and Agyei-Mensah, 2019). According to Agyei-Mensah (2019), corporate governance particularly affects audit quality and firm performance due to its strategic role in the modern business environment. Researchers such as () agree that corporate governance, especially the audit committee structure, affect audit quality and firm performance because it facilitates the monitoring and controlling the activities of the management of a firm, in the absence of the owners. An Audit committee is a significant governance mechanism because it helps to improve the quality of auditing function, financial management and firm performance. External auditors maintain a close working relationship with audit committees, which are regarded as fundamental to sound corporate governance (Inaam & Khamoussi, 2016). Similarly, Chen, Chen, Lobo and Wang (2011) explain that to enhance public confidence and mitigate corporate financial failures, efficient and effective functioning of audit committees is essential.

Though, there are some studies on the impact of corporate governance on firm performance, the role of corporate governance in improving the relationship between audit quality and the performance of firms requires further investigation, particularly against the background of numerous questions raised on the effectiveness of auditing and corporate governance in the Ghanaian banking sector. More recently, a number of studies have provided evidence that mere quality of auditing might not necessarily affect the performance of companies with weaker corporate governance practice (Hassan & Farouk, 2014; Matoke & Omwenga, 2016). The argument advanced by these researchers is that audit quality can have limited impact on the performance of firms if these are accompanied by inefficient enforcement mechanisms and weak corporate governance. In this context, there is dearth of knowledge on the moderating role of corporate governance on the relationship between audit quality and value of firms in developing countries, where little previous studies were conducted. This substantiates the necessity for the study into the moderating effects of corporate governance on audit quality and firm value. As a result, the study aimed to provide case study evidence on the impact of audit quality on a firm's value and how corporate governance moderates this relationship. The real contribution of this study to the existing body of knowledge in this field is to provide further evidence of the relationship between audit quality and firm value in a developing country.

## **2. Literature Review**

### **2.1. Auditing and Audit Quality**

The separation of ownership and control and information asymmetry between management and owners of a firm has resulted in an agency problem. This has created the need for external auditing. Unlike similar concepts, the definition of auditing is subject to less conflicts and disagreement. Auditing is the independent and systematic evaluation of the records and books of a firm or an organisation to verify or ascertain the authenticity of the facts presented in the financial statements regarding the operations of a firm (Hassan & Farouk, 2014). According to the International Standards on Auditing 200, the overall objective of external auditing is to increase the degree of confidence of targeted users in the financial statements. This objective is achieved through the expression of opinion by the auditor on whether the prepared financial statements presents fairly, in all material respects and in accordance with the applicable financial statements of a firm's financial performance. This presupposes that auditors have a fiduciary responsibility to provide quality audit reports.

The external auditing ensures that the financial statements presented by management are truthfully stated and are presented in accordance with the necessary reporting and legal frameworks. The independent verification and opinion provided by auditors provides credibility of the financial statements (Cahan & Sun, 2015). In addition, as per the auditing standards, external auditors are required to communicate and discuss the quality of the audit with the audit committee of an entity. This emphasise the significance of an audit quality. As explained by Zhang (2107), the quality of an audit is anticipated to restrain and constrain opportunistic behaviour of management, in addition to the reduction of the risk that the financial statements contain omissions and material misstatements.

Usually, audit quality would mean the extent to which auditors adhered to the auditing standards and professionalism in the discharge of their duties. This suggests that the auditors must execute their duties with due regard to professional care, competence, and independence. However, these attributes of audit quality are not easily measured. As a result, researchers have used other variables as proxies for audit quality.

The most popular proxies of audit quality are audit fees and firms audited by the Big 4 auditing firms such as KPMG, Price Waterhuse Coopers, Ernst and Young, Deloitte (Bédard et al. , 2010). The justification for the use of audit fees is that quality audit is expensive and firms that can afford to pay receives it. It is perceived that the higher the audit fee, the higher the audit quality. In the auditing profession, Deloitte, Price Waterhouse Coopers (PwC), KPMG and Ernst and Young (EY) are the big four auditing firms in the world. Together, these firms hold more than 50% of the

auditing market in the world (Asthana, Khurana and Raman, 2019). These auditing firms have the required resources, both human and logistical to enable them to render quality audits (Asthana, Khurana & Raman, 2019). Firms that are audited by the Big 4 auditing are perceived to receive quality audit than their counterparts. Here, the difference between the two variables is blurred because the Big 4 auditing firms are those that charge higher fees. It can be observed from the foregone discussion that the quality of auditing is multi-dimensional, and the perceived differences lead to the variations in their effects on a firms' performance.

## **2.2. Ghanaian Banking Institutions and Corporate Governance Structures**

Corporate governance in the banking industry has gained attention in literature due to the significant role occupied by banks. Corporate governance entails procedures, mechanisms, policies, practices, rules and processes by which firms or organisations are managed and controlled (Yermack, 2017). The main aim of effective corporate governance is to protect the interests of shareholders. This is because, without corporate governance, management would act in their own interest, instead of the interest of the owners of a firm (McCahery, Sautner and Starks, 2016). The compliance of a firm with good corporate governance ensures the value of shareholders through the appropriate utilisation of the resources of a firm to maximise the value of a firm (Oppong et al. , 2016). According to McCahery et al. (2016), the key feature of corporate governance is its distribution role of the rights and responsibilities among the various stakeholders of an entity.

In the banking sector in Ghana, policy makers and other stakeholders have put in place measures, legislations and policies to ensure good corporate governance practices among banks. The corporate governance code in Ghana is influenced by numerous factors. Several monitoring mechanisms exist to ensure that banks adhere to good corporate governance practices. These monitoring mechanisms mostly involve the promulgation of laws that compel the banks to operate within a legislative framework. These laws include the Ghana Banking Act (Act 408), the Ghana Banking Act 1986 (PNDCL 225), the Criminal Code, The Ghana Companies Act 1963 (Act 179), and the Bank of Ghana regulations. Responding to the collapse of the seven banks, the Bank of Ghana introduced specific corporate governance mechanisms for banks. Among these include a four-year fixed-term tenure for managing directors and CEOs of banks in Ghana as well as specific qualifications and experience for the principal officers of banks.

In addition, as Ghana is a former colony of Britain, the majority of corporate governance processes are borrowed from that country. In addition, as a member of several international unions and associations, this impacted on the corporate governance structures in corporate Ghana (Oppong et al. , 2016). For example, firms in Ghana are guided by the Sarbanes-Oxley Act of 2002. Similarly, the banks in

Ghana are also guided by the Basel III, developed by the Bank for International Settlements.

### **2.3. Theoretical Framework**

This study was conducted within the framework of agency theory. In a contemporary business environment, the management of ownership of businesses are different. The management are hired by the owners to manage their business in return of rewards for their service. This means that the main aim of management is the maximisation of the wealth of the shareholders. However, there is the tendency that management would pursue their personal interests at the expense of the investors. This is made possible because of information asymmetry where the quality and quantity of information available to management is disproportionately more than the information available the investors (Lin & Hwang, 2010). This conundrum is the agency theory and the associated problem is known as an agency problem. Agency theory highlights the existence of agency problems between management and investors as a result of segregation of ownership and control which may result in entrenchment and expropriation of the wealth of investors by management (Sultana, Singh & Rahman, 2019).

The agency theory postulates that the monitoring roles occupied by external auditors, align the interests of both the owners and managers and eliminate conflicts of interest, which is inherent in corporate management. The separation of ownership from management highlights the necessity for a quality audit (Lin & Hwang, 2010). External auditors occupy monitoring roles that ensure that financial statements provided by management are reliable and free from material misstatements. Another mechanism that cures the agency problem is the formation of audit committee made up mostly of non-executive directors. The audit committee is a sub-committee of the board of directors that occupy corresponding roles between external auditors, management and the board of a firm. The independent audit committee serves as a trustee in the system of governance that helps to eliminate or, at least, decreases information asymmetry, mitigating agency issues. This implies that the independent audit committee contributes towards quality auditing. Similarly, Sultana, Singh and Rahman (2019) assert that to mitigate the risk of corporate financial failures and enhance the confidence of the public, effective functioning of an independent audit committee is needed. Correspondingly, audit committees are assigned the responsibility of ensuring effective internal control, which is necessary for the smooth running of a firm. In a summary, audit committee improves the audit quality and the overall performance of a firm.

### **2.4. Empirical Review**

There are a number of studies that directly examine the impact of audit quality on the performance of firms. The results have provided conflicting outcomes. For example, Chen, Chen, Lobo and Wang (2011) investigated the impact of audit

quality on cost of capital and earnings management. Chen et al. (2011) found that audit quality had a positive impact on the cost of capital of non-state-own enterprises whilst no relationship was found between audit quality and cost of capital of state-owned enterprises. In Nigeria, Hassan and Farouk (2014) investigated the relationship between audit quality, measured by auditor size and financial performance of quoted cement firms. The authors found a positive and significant relationship between audit quality and the financial performance of the firms. Similarly, Ugwunta, Ugwunyani and Ngwa (2018) examined the effect of audit quality on the market price of companies listed on the Nigerian Stock Exchange. The audit quality was measured by using the Big 4 benchmark. Ugwunta, Ugwunyani and Ngwa (2018) found that audit quality was positive and significantly related to financial performance.

In another study in Kenya, Matoke and Omwenga (2016) examined the relationship between audit quality and performance of firms listed on the Nairobi Stock Exchange. The authors found that the effect of audit quality on financial performance of firms was positive and significant. Nazir and Afza (2013) also investigated the impact of audit quality on the value of firms in Pakistan. The audit quality was proxied by an audit committee whilst return on assets and Tobin's Q were used to measure firms' value. The study found that audit quality had a positive and strong impact on both ROA and Tobin's Q. In Jordan, Zureigat (2010) examined the relationship between audit quality and financial structure. Obtaining data from 198 firms, and using logistic regression analysis, the researcher found a positive and significant relationship between audit quality and the financial structure of a firm.

Soliman and Elslam (2012) examined the impact of corporate governance on audit quality in Egypt and found that board independence, role duality and audit committees had a significant and positive relationship with audit quality. Woodland and Reynolds (2003) also examined the relationship between audit quality and financial performance. The authors used audit fees as proxy for audit quality. Woodland and Reynolds (2003) found a positive relationship between audit quality and financial performance. In addition, Smii (2016) examined the impact of audit quality on the accounting profit of firms listed on the Tunisia Stock Exchange (TSE). The study found a positive and significant impact of audit quality on the accounting profit of the firms. Hua, Hla and Isa (2016) also found that audit quality had a positive and significant impact on financial performance of firms in the Malaysian construction sector.

In other study, Rahimi and Amini (2015) evaluated the relationship between audit quality and the profitability of companies listed on the Tehran Security Exchange. The authors used the size of the audit firm and number of years of auditing as measures of audit quality. The authors found that audit quality had a positive but insignificant relationship with the performance of the firms. In Malaysia, Sulong,

Gardner, Hussin and Sanusi (2013) also investigated the impact of managerial ownership, leverage and audit quality on the performance of firms, measured by both return on assets (ROA) and return on equity (ROE). Using agency theory, the authors found that audit quality had a significant and negative impact on the performance of the firms. Similarly, Elewa and El-Haddad (2019) investigated the effects of audit quality, measured by the Big 4 benchmark and auditor rotation on the performance of firms. The findings revealed that audit quality had no impact on the performance of firms. Hsiao, Lin and Yang (2012) also found no relationship between audit quality and financial statement fraud.

In addition, Salehi, Moradi and Paiydarmanesh (2017) examined the effects of corporate governance on audit quality disclosures. The study found no relationship between corporate governance and the quality of audit disclosures. It can be observed that the previous related studies concentrated on the relationship between audit quality and corporate governance. Few studies that investigated the impact of audit quality on firm performance used different variables such as audit committee, years of auditing and audit firm size as variables to measure audit quality. However, the studies on the moderating effects of corporate governance on the relationship between audit quality and firm value were absent. This study narrows this literature gap.

### 3. Research Design

The study included all the commercial banks in Ghana. During the period, there were thirty-six (36) commercial banks in Ghana. The study covered a period of eight years, from 2010 to 2017. All the data used for the study were sourced from the annual reports of the banks. Annual reports are the official documents firms and organisations use to communicate with their stakeholders (Maama & Appiah, 2019). A total of two hundred and eighty-eight (288) firm-year observations were expected. Due to the unavailability of data in respect of a number of banks, the study used two hundred and fourteen (214) firm-year observations. Specifically, corporate governance and audit quality information were obtained from the directors' reports' sections of the annual reports. In addition, the financial statements provided the data on the financial performance of the firms.

To establish how audit quality affects the financial performance of the firms, a random effect estimation technique was used. The models used for the estimation are provided in equation 1 and 2.

$$\text{Tobin's } Q_{it} = \beta_0 + \beta_1 \text{Audit}Q_{it} + \beta_2 \text{Size}_{it} + \beta_3 \text{ROE}_{it} + \beta_4 \text{Age}_{it} + \beta_5 \text{Lev}_{it} + \epsilon_{it} \quad (1)$$

$$\text{Tobin's } Q_{it} = \beta_0 + \beta_1 \text{Audit}Q_{it} + \beta_2 (\text{Audit}Q_{it} * \text{CG}) + \beta_3 \text{Size}_{it} + \beta_4 \text{ROE}_{it} + \beta_5 \text{Age}_{it} + \beta_6 \text{Lev}_{it} + \epsilon_{it} \dots \quad (2)$$

The variables in the model are explained below:

Tobin's  $Q_{it}$  is the value of the firms at time  $t$ , measured by the market value of firms divided by the total assets;  $AuditQ_{it}$  is Audit Quality at time  $t$ , measured by the type of audit firm, one (1) representing Big 4 audit firms and zero (0) otherwise;  $size_{it}$  is the total assets of the firms at time  $t$ ;  $ROE_{it}$  is return on equity at time  $t$ ;  $Age_{it}$  is the years of existence of the firms;  $Lev_{it}$  is the leverage of the firms at time  $t$  measured by the ratio of total debt to total equity and  $\epsilon_{it}$  as the random error term.

The study used Tobin's  $Q$  (dependent variable) as proxy for the value of the firms and auditor firm size (Big 4 vs. Non-Big 4) as proxy for audit quality (independent variable). As the purpose of external audit is to improve financial reporting quality and further provide valuable advice, the study examines whether there are significant differences in performance between clients of Big 4 and non-Big 4 audit firms. Further, the study investigates if corporate governance (proxied by the percentage of independent directors on the audit committee) occupies any moderating role in the relationship between audit quality and firm performance. Evidence suggested that the value of firms is influenced by other variables such as size, return on equity (ROE), age and leverage of firms and therefore these are introduced as control variables.

## 4. Results and Discussion

### 4.1. Descriptive Analysis

Table 1 presents the descriptive statistics of the variables used for the study. The average value for the audit quality was 0.737, meaning more than half of the firms were audited by the Big 4 auditing firms. In addition, the average size of the firms was 1.284 billion cedis, with a maximum and minimum values of 9.098.14 billion and 312.66 million cedis respectively. With a standard deviation of 983.83 million cedis, it suggests that there is a wide difference among the firms with respect to their size. The average return on equity (ROE) of the firms was 2.75% whilst the average leverage of the firms was 135.72%. Similarly, the average corporate governance variable is 86.13 percent, suggesting that more than 81% of the audit committee members of the banks were nonexecutive directors.

**Table 1. Descriptive Data**

	Mean	Standard Deviation	Maximum	Minimum
Audit Quality	0.737	0.585	1	0
Firm Size	12837.94	983.83	9098.14	312.66
ROE	2.75	3.748	7.84	-8.77
Age	22.63	31.74	99	7
Leverage	135.72	186.85	368.96	76.52
CG	86.13	74.61	100	50

#### 4.2. Multicollinearity Test

To check for multicollinearity among the variables, correlation analysis was performed. As shown in Table 2, the correlation among the variables was not strong. Except for the correlation between audit quality and firm size ( $r = 0.483$ ) and firm size and age of the firms ( $r = 0.517$ ), the correlations coefficient among the variables were less than 0.4. According to Hair et al. (2009), a multicollinearity exists if the correlation between two variables is above 0.90. Based on the results, it can be stated that no serious correlation problem exists. Confirming this claim, the variance inflation factors show that there was no problem of multicollinearity among the variables.

**Table 2. Correlation Matrix and VIF Results**

	AuditQ	Size	ROE	Age	Leverage	CG	VIF
Audit Quality	1.00						1.193
Firm Size	0.493***	1.00					1.118
ROE	0.153*	0.264*	1.00				1.003
Age	0.364**	0.517**	0.074*	1.00			1.171
Leverage	-0.247*	-0.285	-0.106*	0.246	1.00		1.024
CG	0.363*	0.218*	0.183	0.163**	0.0764	1.00	1.132

\*\*\* =  $p < 0.01$ ; \*\* =  $p < 0.05$  and \* =  $p < 0.10$

#### 4.3. Regression Results

The results on the impact of audit quality on firm value are presented in Table 3. The first model shows the impact of audit quality on firm value. In addition, the results on how corporate governance moderates the relationship between audit quality and firm value is also presented with model 2 in Table 3. The Hausman Test results ( $p = 0.2717$ ) presented in Table 3 suggests the results is insignificant and thus the null



hypothesis of the presence of time specific variations in the model is not rejected. As a result, a Random Effect model was used for the estimation. The results presented in Table 4 show that audit quality have a positive impact on the value of a firm. This means that the engagement of the services of the Big 4 audit firms contribute to the increment of the value of the firms. Here, the coefficient of . 0. 0943 suggests that the engagement of any of the Big 4 auditing firms can result in a 9. 43% percentage increase in the value of the firms, when the other variables remain unchanged.

This result is plausible because the quality of an audit enhances the quality of financial reporting, reduction in agency costs that arise from the opportunistic behaviour of managers and reduction in information asymmetry. Similarly, the results reflect the reality because quality auditing provides assurance to the various stakeholders as well as offer valuable advice to businesses which eventually result in an improved performance. In addition, this result is consistent with the explanation that the monitoring roles occupied by external auditors can align the interest of both the owners and managers and eliminate conflicts of interest, which are inherent in corporate management. These monitoring roles occupied by the quality of audit ensures that financial statements provided by management are reliable and accurate. This result confirms the findings of earlier similar studies by Zureigat (2011); Chen, Chen, Lobo and Wang (2011); Hassan and Farouk (2014); Matoke and Omwenga (2016); and Smii (2016), who provided evidence that audit quality result in an increase in the value of a firm.

The impact of firm size on the value of the firms is positive, suggesting that firms with larger assets has the higher propensity for increasing their value. Similarly, the return on equity (ROE) of the firms has a positive impact on the value of the firms. With a coefficient of 0. 1748 (significant at 10%), it suggested that a percentage increment in the ROE of the firms increases the value of the firms by 17. 48% when the other variables are held constant. The results further suggest that the age of the firms positively relate to the value of the firms. This is consistent with the idea that firms that has been in existence for a long time has the required experience and resources to create value. In addition, the leverage of the firms had a positive impact on the value of the banks.

The Model 2 incorporates a moderating variable, corporate governance (AuditQ\*CG), to examine whether the relationship between audit quality and firm value is conditional upon the strength of corporate governance (measured by the percentage of independent audit committee members). Here, it can be found that the previously insignificant relationship between audit quality and firm value no longer holds. With the existence of good corporate governance, the audit quality has a significant impact on the value of the firms. This implies that a strong corporate governance helps to better moderate the relationship between audit quality and the value of firms. This result is confirmed by the comparison of the  $R^2$  and the adjusted

R<sup>2</sup> of the two models. The R<sup>2</sup> and the adjusted R<sup>2</sup> of model two are 67.41% and 59.33% respectively whilst the R<sup>2</sup> and the adjusted R<sup>2</sup> of model one are 63.15% and 57.38% respectively. This is consistent with the corporate variance variable contributing to the additional explanatory power of the model.

The moderating role played by the corporate governance can be explained by the fact that the audit committee is made up mostly of non-executive directors and thus are able to work effectively to ensure audit quality and increased firm value. This is because the audit committee occupies corresponding roles between external auditors, management and the board of a firm and in this context serves as a trustee in the system of governance that assists to eliminate or, at least, decrease information asymmetry, thereby mitigating agency issues. By occupying this role, the independent audit committee contributes towards quality auditing. The result suggested that the separation of ownership from management highlights the necessity for a quality audit. In addition, the result can be explained by the fact that the audit committee is assigned the responsibility of ensuring effective internal control, which is necessary for the smooth running of a firm. This result is consistent with the findings of Sultana, Singh and Rahman (2019), who explained that to mitigate the risk of corporate financial failures and enhance the confidence of the public, effective functioning of an independent audit committee is needed. These results confirmed the findings of earlier studies such as Soliman and Elslam (2012); and Al-Dhamari and Chandren (2018) whose finding was that corporate governance is able to enhance the relationship between audit quality and firm value.

**Table 3. Regression Results**

	<b>Model 1</b>	<b>Model 2</b>
Constant	18.25 (3.721)	19.92 (3.182)
Audit Quality	0.0943 (1.827)	0.1568** (1.925)
Firm Size	0.1941** (2.028)	0.1746** (1.936)
ROE	0.1749* (2.127)	0.1633* (2.328)
Age	0.1174* (2.853)	0.1059* (1.926)
Leverage	0.0857* (1.629)	0.0815* (1.181)
AuditQ*CG		0.0822**(1.697)
R <sup>2</sup>	0.6315	0.6741
Adjusted R <sup>2</sup>	0.5738	0.5933
F-stats	58.53***	63.72***
<b>Hausman Test</b>		
Chi-square	3.646	
d. f.	2	
p-value	0.2719	

\*\*\* = p < 0.01; \*\* = P < 0.05 and \* = p < 0.10

## 5. Conclusion

The debate on the impact of audit quality on firm value and how corporate government moderates this relationship has surfaced as a result of numerous corporate scandals in Ghana. As a result, the study examined the impact of audit quality on firm value and how corporate government moderates this relationship. The results revealed that audit quality exercises a positive impact on the value of a firm. In this context, the engagement of the services of the Big 4 audit firms contribute to the increment of the value of the firms. In addition, the existence of good corporate governance improves the relationship between the audit quality and the value of the firms. Corporate governance better moderates the relationship between audit quality and the value of firms. The implications of this results are two-fold. First, audit quality is significant towards the growth of a firm. In addition, firms must have strong corporate governance, especially the audit committee if they want to reap the full benefit of external auditors.

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## The Influence of Government Support and Policies to Informal Small Businesses in the Wineland District of the Western Cape

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**Abstract:** This paper aims at discovering the contribution of the government support structures and policies towards the growth of informal small businesses of the Cape Winelands in the Western Cape beyond seed funding grant. It has been observed that despite the financial support from the government, informal small businesses in rural areas, continue to face barriers to growth. The main research question of this study was to ascertain the effect of government support and policies to the growth of the informal businesses who have received seed funding in particular those in the Wineland District. The study utilized a quantitative approach to collect data, questionnaires were administered to 60 entrepreneurs who received seed funding from Cape Winelands district municipality. The data was analysed using Statistical Package for the Social Sciences (SPSS). Findings indicated that there are still factors that are hindering the growth of their business such as lack of finance due to lack of access to financial facilities and insufficiency of the seed fund, instability of businesses, limited business space, crime, lack of infrastructure, marketing, coaching and mentoring, business management skills and transport. Government support structures and policies were analyzed and the findings included a lack of access and restrictions to qualify, as well as a blue print to manage financial assistance / grants received. There is a gap between the alignment of government business development policies and the informal businesses, as well as mentoring and coaching, which means complete involvement of government officials.

Recommendations were made for government should provide flexible policies that allow them to determine what support is necessary per individual business. Granting the same standard amount of money to every informal small business does not help, as some of the businesses have more start-up needs than others. This will lead them to provide more realistic essential support to the informal businesses.

**Keywords:** government support; policies; informal small businesses

**JEL Classification:** E42

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## Introduction

The failure rate of small businesses continues to increase rapidly despite government support offered to them. It seems that to increase sustainability of small businesses is for policy makers to set policies that foster growth in the small business sector. Given the pervasive scholarship on informal small businesses, recent studies that research on this subject has not been dealt with from this angle. In attempt to answer the main research question following sub objectives were derived: Factors affecting the growth of the informal small businesses beyond seed funding, Support structures available to the informal small businesses, Impact of seed funding policy to the growth of the informal small businesses. Fatoki and Garwe (2010:731) are of the opinion that without capital, informal businesses will find it hard to grow their businesses. Given that a vast majority of informal business owners do have the appropriate registration documents, financial institution are reluctant to assist these entrepreneurs (Khosa & Kalitanyi, 2014:213). With this in mind, it unjust to discriminate against these entrepreneurs due to their informality. No wonder Rogerson (2010b:38) stated that there is very little support from government to assist these entrepreneurs. FinMark Trust (2006, cited by Fakoti & Garwe, 2010:731) states that only 2% of SMMEs can access bank loans in South Africa, since they do not have credit records and/or collateral which is a major requirement according to the policy. Government should adjust some laws and regulations such as (but not limited to) licensing, permits and surety bonds that place serious restrictions on the ability of entrepreneurs to operate their businesses. Ngoroa and Mago (2013:9) concur and claim that rural entrepreneurs will succeed when government regulatory systems improve to provide flexible policies which allows to determine a support necessary per individual business, that may create better business growth opportunities.

The debate surrounding the availability of support structures for small businesses has been a looked at from different perspectives. Despite this backdrop, support structures are available to aspiring and existing entrepreneurs regardless their sector (Mkubukeli & Tengeh, 2015:18). However, the failure rate of small businesses continues to increase rapidly. In this regard, Berger and Udell (2002:32) are of the opinion that a vast majority of small businesses fail to receive financial support due to their lack of access to public capital markets. It seems that most small businesses receive support from government entities more than they do from private institutions.

## **1. Literature Review**

Review of the literature was carried out under the following topics: challenges to the growth of businesses beyond seed funding, the need of small business (informal) in South Africa, support structures available to informal small businesses, impact of seed funding policy to the growth of small businesses.

Seed funding is the fuel on which a business runs. When a business first starts profits are going to be low so business funding is need to allow for the cash flow to meet expenses until profits pick up (Francis, 2018). In the context of this study seed funding is the money provided by the Cape Winelands district municipality to the informal small businesses.

### **1.1. Challenges to the Growth of Informal Businesses that have Received seed Fund**

Even though the on-going support to informal small businesses, it seems that both national and international economies are mostly driven by informal small businesses that experiences a variety of challenges that endangers their existence (Agbenyegah, 2013:1). These challenges include but are not limited to: lack of training and education; lack of finance and negative attitudes (Chinomona & Mazirir, 2015:6). There is a need to look at the extent of growth of government supported businesses as well as the role of the policies.

#### **1.1.1. Factors Affecting the Growth of Informal Small Businesses beyond Seed Funding**

Many would agree that informal small businesses do not grow to a point where they can become sustainable and contribute substantially to job creation and poverty alleviation. This premise is supported by the views held by (Ligthelm, 2013:57). Ligthelm (2013:57) points out one of the reasons informal small business do not grow is that informal small businesses are established predominately by survivalist entrepreneurs who lack business acumen and business mindset. Mwobobia (2012:112) also points out similar challenges; lack of finance; discrimination and problems with assistance from government officials. Given the backdrop of the literature on the challenges facing informal small businesses, there seems to be scanty literature on the challenges to the growth of informal small businesses, specifically in the Wineland District of the Western Cape Province, hence the main research question of this study was/is? to investigate to what extent do informal businesses that have received seed funding struggle to grow in the Wineland District of the Western Cape Province of South Africa.

#### **1.1.2. Lack of Access to Bank Loans**

According to the NCR (2012: 55) people in SA often borrow funds to establish their businesses. FinMarkTrust (2006, cited by Fatoki&Garwe, 2010:731) asserted that



only two per cent of small business have access to funding facilities in South Africa. Of the reason why commercial banks choose to neglect informal and small business is the inconsistency of their income and lack of creditability. According to Rath (2011) with limited funds and resources, informal business end up failing. Rogerson (2010:22) announced that the main impediments facing informal businesses is their inability to secure funds and generate cash sufficient cash flow. The essence of generating cash flow is to re-invest in the business to obtain more resources; equipment; inventory and so forth. The lack of the latter is persistent challenge to informal businesses. The GEM report motivated that new enabling funding models be developed for informal businesses (GEM, 2013:38).

Choto, Tengeh and Iwu (2014:96) concur and opine that the South African government's regulations have created massive administrative requirements, which are costly for someone who is starting a business. Implementation of these laws discourages potential entrepreneurs from starting sustainable businesses (World Bank, 2010). International evidence in this respect shows that the regulatory environment has a greater motivation on new entrepreneurial ventures growth and sustainability.

### **1.1.3. Limited Business Space**

The lack of business space was one of the major challenges of rural entrepreneurship (Mugobo & Ukpere (2012, cited by Khosa & Kalitanyi, 2014:210)). On the one hand, Fatoki and Garwe (2010:731) the limitless of business space has a negative influence on the success of a new venture. On the other hand, a study by Chikamhi (2011:54) revealed how difficult it is to locate a business successfully, near by its market.

Policy makers in the United Kingdom (UK) have long set policies that favour small businesses (Hoffman *et al.*, 1998:37) Walker and Preuss (2008: 1600) also note that it is important for policy makers to align their policies with small businesses, and to encourage buying from small businesses to increase their sustainability. Policy makers should establish policies that foster growth in the small business sector as means to increase sustainability within the sector, availability of business space and warehouses that are accessible to the market is crucial for any business growth.

### **1.2. The Need of Small Business (informal) in SA**

The unemployment rate in South Africa is at a staggering twenty five per cent (Statistics South Africa , 2014), In many parts of the world small businesses are considered to be the leading creator of new jobs both in developed and developing societies (Agupusi, 2007:2; Fatoki & Garwe, 2010:729; Fatoki & Odeyemi, 2010:128). This explains why the South African government has identified the informal sector as having prospects of ameliorate poverty and unemployment (CIGS, 1998:3). The rapid growth of this sector needs to maintain a standard with the growth of labour force. (Nieman and Nieuwenhuizen (2009:275).

Government should re-assess its strategies and systems. It is empirically evident that informal small businesses can contribute to economic development, which may lead to job creation and poverty reduction. More resources should be realised towards entrepreneurship training and education.

### **1.3. Support Structures Available to Informal Small Businesses**

The debate surrounding the availability of support structures for small businesses has been a look at from different perspectives. Despite this backdrop, support structures are available to aspiring and existing entrepreneurs regardless their sector (Mkubukeli & Tengeh, 2015:18). However, the failure rate of small businesses continues to increase rapidly. In this regard, Berger and Udell (2002:32) are of the opinion that a vast majority of small businesses fail to receive financial support due to their lack of access to public capital markets. It seems that most small businesses receive support from government entities more than they do from private institutions.

There are available support structures in SA, the questions is the access thereof. For instance, the Department of Mineral Resources (2006:1-43) in a report mentions a list of institutions that help empower balm owned businesses. These support structurers include but are not limited to: National Youth Development Agency (NYDA) National Empowerment Fund (NEF) and Industrial Development Corporation (IDC). According to Shen and Gunson (2006:427) some states do offer business owners with support. However, it seems that the support that governments offers remains inadequate.

Rogerson (2010:22) argues that the main impediments that informal businesses face are their inability to secure funds, and to generate sufficient cash. The essence of generating a cash flow is to re-invest in the business to obtain more resources, equipment, inventory, and so forth, which poses a persistent challenge to informal businesses. The GEM report states that new enabling funding models should be developed for informal businesses (GEM, 2013:38).

### **1.4. The Impact of Seed Funding Policy to the Growth of Small Businesses**

Seed fund is a capital needed to start or expand a business, this type of funding is often obtained in exchange for an equity stake in enterprise but in this case the money has been granted by government. (K.A Francis 2018:1), classifies seed funding as the fuel on which a business runs. During start-up phase profits are likely to be low financial aid is needed to cover business expenses until business cash flow becomes sustainable.

The reason funding received by these small businesses is called seed funding is because the amounts received ranges between R15 000 and R30 000, investments for seed funding usually range in the tens of thousands to hundreds of thousands unlike venture capital investment which can range into millions of rands.

Mensah (2004:3) explains that government introduced official schemes to increase the flow of financial assistance to SMEs, sometimes this is done with the support from donating agencies. It has been explored that such programs and schemes have the potential to improve access of SMEs to additional credit. Although he reveals the significance of the government finance schemes Rob Jennings J.D of Urban Ministry: Pros and Cons of Receiving Government Funding, argues that when you bring investors in your business you open up for them to have control over the business. You are also expected to abide by the restrictions of grant funds utilization, no matter how officious and challenging they are. Government grants comes with a lot of rules and regulations and there are budget constraints issues every year which affects the availability of funds to cover all businesses in need.

With the arguments addressed above this paper acknowledges the views that government aims at addressing small business challenges. Abdulaziz & Worthington (2013:5) declares government have acknowledged financial constraints faced by SME sector and lack of access to financial aid in the developed and emerging countries that may negatively affect the role of attaining national goals. To make sure that SMEs have access to financing, government schemes and programs have been excuted.

Vera & Onji (2010:12), Ono & Uesugi (2009:2) reveals that the majority of the literature has recorded that banks are the main external capital provider for SMEs sector for the advanced as well as the developing countries.

The economy of the country also depends on the growth of the SMEs, as it is mentioned by Fatoki & Odeyemi (2010:6) that the government throughout the world focus on the development of the SME sector to promote economic growth. Promotion of small business development is a helpful way of addressing unemployment it works together with influencing potential small businesses in job creation. FinMark Trust (2006:1).

Financing of SMEs has been a major issues across the continent, it is mentioned by Gbandi & Amissah (2014:10) that government has over the years introduced a variety of financing schemes and programs aimed at overcoming the financial constraints as witness by the SMEs in Nigeria, they further emphasized that proper financing of SMEs is an essential tool for promoting and leveraging small and medium enterprises development in Nigeria. Fatai (2009:5) also agreed that one of the major challenges faced by SMEs is that of capital to finance their operations.

Government seed funding for small businesses should make a difference in addressing finance issues as it is one of the major issues in South Africa. Rogerson (2008:7) highlights the resemblance of ability to access funding, skills and business management skills and training, accommodative rules and regulations as key strategic elements in supporting the three pillars of promoting entrepreneurship, strengthening the facilitating environment; and enriched enterprise level capacity

and competitiveness. The investigation in this section is linked to the analysis offered above, while it ties the arguments by exploring the challenges and disadvantages of receiving a seed fund. The study conducted by Amy Kay (2018:6) concludes that proposals are typically more involved and difficult to coordinate. Reporting requirements are very specific and can be time-consuming. Whereas Fraser Sherman (2017:1) argues that landing a government grant is a good deal as you don't have to pay the money back and government sometimes helps grant recipients network with each other but some government regulations and requirements are difficult for the informal business owners to meet, for an example drawing up a good proposal is so challenging that some freelance writers specialize in writing grant proposals for others.

Even in other countries such as Europe the government has moved from enhancing the availability of loan to finance SMEs, according to Mason (2008:1) the government intervention shifted during 1990s to the provision of venture capital. European Union and Member States introduced loan guarantee schemes in order to address insufficiency in the availability of loan finance.

## **2. Methodology**

This study utilized quantitative research methods. The reasons for utilizing quantitative research methods is because it enumerates the problem by way of generating data that can be transformed into usable statistics.

According to Brynard and Hanekom (2006:36), a quantitative method is more statistically orientated and therefore assigns numbers to observation whereas, a qualitative method seek an detailed understanding of a particular incident. The sample size of this research was 60 businesses, therefore the researcher was able to figure out the number of businesses affected by certain factors which resulted to the delay of growth in their businesses.

In research, population is the sum of members group who has similar characteristics which could enable the researcher obtain information and from which the units of analysis is selected. The foregoing statement is supported by Brynard and Hanekom (2006:55, and Flick (2007:85), who both agree that population is a group of people with equal opportunities chosen to participate in a study.

### **2.1. Sample Frame**

According to Bryman (2004:87), a sample frame is a criterion that is followed to weed out potential participant from the population since it is time consuming and expensive to target the whole population of a study. Hence, the sample frame of this study was entrepreneurs that have received a seed funding from Cape Winelands District municipality between 2015 – 2018 financial years.

## 2.2. Sample Size

The list of small businesses that received seed funding from the Cape Winelands Municipality between the financial years 2015 – 2018 provided the study's sampling frame. The total number of businesses on the database totalled 60. All the participants were potential interviewees, and hailed from the following local municipalities within the Cape Winelands district:

- Drakenstein Municipal Area – 10;
- Stellenbosch Municipal Area – 13;
- Witzenberg Municipal Area – 13;
- Breedevalley Municipal Area – 13; and
- Langeberg Municipal Area – 11.

## 2.3. Sampling Technique

This study adopted a simple random sampling. According to Alvi, (2016:16) probability techniques can be used only for finite population. So probability random sampling was suitable in this case in order for every entrepreneur that is on the list to get an equal chance of selection. It also helped the researchers avoid an unconscious bias they may have that would be reflected in the data they are collecting.

## 3. Discussion of findings

### 3.1 Profile and the Characteristics of the Entrepreneurs:

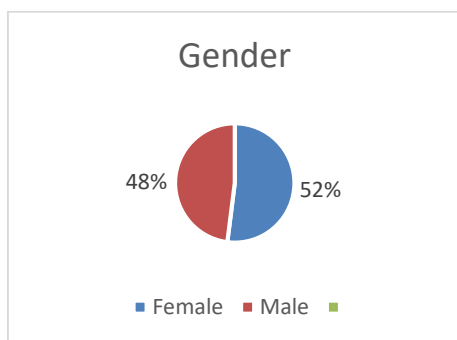


Figure 1. Respondent's Gender

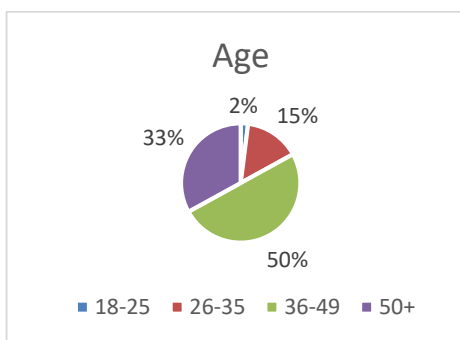
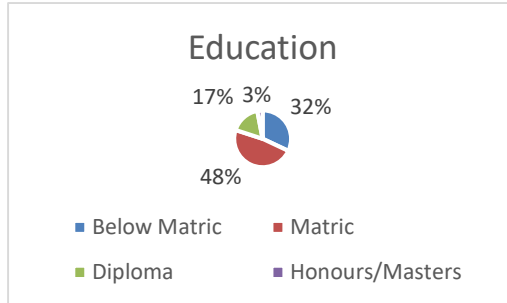


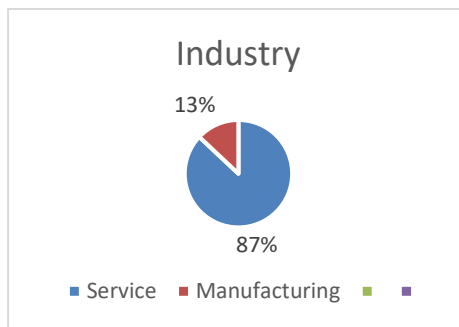
Figure 2. Respondent's Age

The majority of respondents are females which is fifty two percent, it is interesting as it shows that they are economically empowered and active in spite of few or no opportunities for employment, It is repellent to learn that there was only seventeen percent of youth The government should ensure that young people are aware of and can access their support systems.



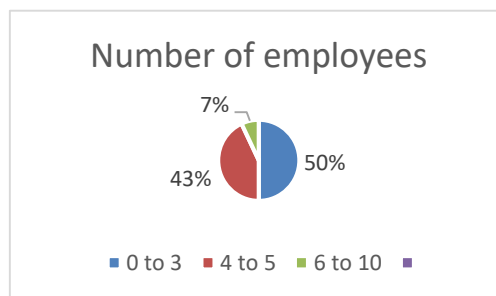
**Figure 3. Respondent’s Level of Education**

In terms of education findings indicated that most of the respondents are educated, which should enhance their decision making skills but their businesses are still struggling to grow.



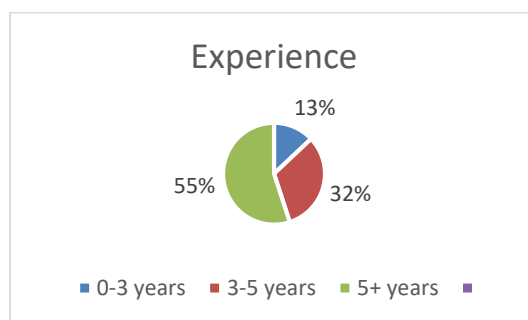
**Figure 4. Business Industry**

Majority of respondents confirmed their companies are in the service industry, because they struggle with finances, and it is difficult for them to obtain the required capital to engage in big industrial businesses, while seed funding amounts are also minimal.



**Figure 5. Number of Employees**

Most and the majority entrepreneurs are running their own businesses as families, for them to be able to hire more employees these entrepreneurs need to grow their businesses and acquire entrepreneurial skills to take care of human resource requirements.



**Figure 6. Number of Years in Business**

The majority of respondents has been running the businesses for more than five years, that has proven that number of years in business does not guarantee any sustainability or success as the literature revealed that most businesses die during first 2 years.

### **3.2. Seed Funding Policy Effect**

Table 1 below shows the majority of forty eight percent (48%) of businesses that has received a seed fund in Cape Winelands strongly believes that restrictions on accessing financial assistance affects business growth, while 32% feels that there is a little impact of restrictions that affects their businesses to grow, then 20% does not see any negative effect of restrictions on accessing financial assistance that causes their businesses not to grow. According to what has been said by the respondents in this study government should adjust some laws and regulations such as (but not limited to) licensing, permits and surety bonds that place serious restrictions on the ability of entrepreneurs to run their businesses. In agreement, Ngoroa & Mago (2013:9) has proven that rural entrepreneurs will succeed when government regulatory systems improves to provide flexible policies which may create better business growth chances. He further recommended that the rural entrepreneurs need coaching in business management, access to knowledge and advice, as well as proper guidance. They should be equipped with skills in financial management.

**Table 1. Impact of Seed Funding Policy on Business Growth**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	12	20	20.0	20.0
	Little	19	31.7	31.7	51.7
	Strongly	29	48.3	48.3	100.0
	Total	60	100.0	100.0	

### 3.3. Blueprint on Government Grant Financial Assistance

The study conducted by Kay (2018:6) concludes that business proposals are typically more involved and difficult to coordinate. Reporting requirements are very specific and can be time-consuming.

In this found the same, in Table 2 below that forty seven percent (47%) agree to the statement that blueprint on government grants offered to informal businesses affect the growth of the business as it is not easy to access the financial assistance there are so many processes and procedure to follow in order to qualify and mentoring is not available as they wish, twenty five percent (25%) is not affected at all, while seventeen percent (17%) is little bit affected, then eleven percent (11%) is uncertain.

In agreement, findings of the study done by Choto, Tengeh and Iwu (2014:96) is of the opinion that South African government regulations have created massive administrative which is costly to someone who is starting a business. The implementation of these laws discourages potential entrepreneurs from starting sustainable businesses (World Bank, 2010). It has been shown by the International evidence that the regulatory environment has a greater motivation on the new entrepreneurial ventures growth and sustainability. (Choto) emphasized on allocation of sufficient funding by national government towards business support programs.

**Table 2. Blueprint on Government Financial Assistance Limits Business Functioning**

	Frequency	Percent	Valid Percent	Cumulative Percent
Not at all	15	25.0	25.0	25.0
Little	10	16.7	16.7	41.7
Uncertain	7	11.7	11.7	53.3
Strongly	19	31.	31.7	85.0
Very strongly	9	15.0	15.0	100.0
Total	60	100.0	100.0	



### 3.4 Sufficiency of Seed Fund

Based on respondent's feedback shown in Table 3, sixty two percent (62%) strongly believes that seed funding is sufficient only to cover basic needs of the business, (10%) is uncertain whether it is sufficient or not, twenty three percent (23%) little bit believes that it covers basic needs, and five percent (5%) believes that it is not sufficient at all. Based on the information shared by respondents, the seed fund has helped them to buy start up equipment only some of them could not have enough money for business operation to buy more stock and pay staff, hence their businesses are not yet on sustainability stage. According to Rath (2011:18) with limited funds and resources, informal business end up failing. That is the case with seed funded informal businesses of the Cape Winelands.

**Table 3 Seed Fund Covered Only Basic Start-Up of the Business**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	3	5.0	5.0	5.0
	Little	14	23.3	23.3	28.3
	Uncertain	6	10.0	10.0	38.3
	Strongly	27	45.0	45.0	83.3
	Very strongly	10	16.7	16.7	100.0
	Total	60	100.0	100.0	

### 3.5. Government Business Development Policies

Based on feedback shown Table 4 below sixtyone percent (61%) of respondents strongly agreed that government development policies is aligned with informal businesses, while seventeen percent (17%) does not agree at all, twelve percent (12%) is uncertain, and ten percent (10%) believes that government policies are a little bit in alignment with the informal businesses. Even the literature reveals that policy makers in the United Kingdom (UK) have long set policies that are favourable to small businesses (Hoffman *et al.*, 1998:37) (Walker and Preuss 2008:1600) also noted that the significance of policy makers to better align its policy to small businesses and encourage buying from small businesses can increase the sustainability of small businesses.

The Minister of Business Development even encouraged non-South Africans to share their success strategies with their South African counterparts (Mbata, 2015:18). Ngorora & Mago (2013:2) believes that the information networks and communication infrastructure are also poor in rural areas. If the government can improve access to information and communication channels to reach rural entrepreneurs, challenges affecting the growth of the informal businesses would decrease because they will be able to give input in whatever plans that the government has in place.

**Table 4. Alignment of Government Business Development Policies with Informal Businesses**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	10	16.7	16.7	16.7
	Little	6	10.0	10.0	26.7
	Uncertain	7	11.7	11.7	38.3
	Strongly	31	51.7	51.7	90.0
	Very strongly	6	10.0	10.0	100.0
	Total	60	100.0	100.0	

### 3.6. Provision of Business Management Skills

Based on the feedback in Table 5, thirty percent (30%) of respondents stated that government support is strongly available after seed funding is released, twenty seven percent (27%) believes that a little support is given to seed fund beneficiaries, whereas twenty two percent (22%) is uncertain about it, then twenty one percent (21%) does not see any support given to informal businesses at all. It is very crucial for small informal business owners to be equipped with business and financial management skills in order for their businesses to grow and be sustainable to create employment. It has been proven from the study conducted by Choto (2015:68) that there is a relationship between the number of employees hired by the entrepreneurs that has completed the incubation program compared to those who did not do the program. About 70% of the respondents is not convinced that they have been provided with sufficient business management skills, stagnant business performance may be resulting from this finding, government should take the informal businesses to incubation programmes in order for them to be able to grow their businesses and create employment.

A number of researchers has picked up a need for business management skills development provision to the informal entrepreneurs. Similar findings by Ngorora and Mago (2013:10) suggest that entrepreneurship education should be prioritized with the intention to develop informal small business owners by providing skills, enterprise awareness, business attributes and behaviours as well as everyone else to realize and understand entrepreneurship as a career option. When existing entrepreneurs get trained the new skills addresses pressing needs in their business operations, as well as training of aspiring entrepreneurs give confidence and knowledge that they need in order to start sustainable businesses. In agreement Chinomona and Mazirir (2015:6) also stated that informal business challenges includes but are not to lack of training and education; lack of finance and negative attitudes.

**Table 5. Business Management Skills Received After Seed Funding**

		Frequency	Perce%nt	Valid Percent	Cumulative Percent
Valid	Not at all	13	21.7	21.7	21.7
	Little	16	26.7	26.7	48.3
	Uncertain	13	21.7	21.7	70.0
	Strongly	9	15.0	15.0	85.0
	Very strongly	9	15.0	15.0	100.0
	Total	60	100.0	100.0	

### 3.7. Mentoring and coaching

Ngorora and Mago (2013:10) suggested that rural lack business management skills, coaching and guidance, information and advice. It has been shown on the Table 6 below, that fifty percent (65%) of respondents concurred that there is a lack of mentoring and coaching from government, whereas twenty five percent (25%) feels that there is no lack at all, and ten percent (10%) is uncertain. The majority of respondents stated that there is no sufficient mentoring offered to them, according to the literature that can result to lack of business growth.

Furthermore, Morrison et al., stated that there is considerable evidence that entrepreneurial ventures that lack the relevant entrepreneurial skills, technical skills, management experience, and are inflexible tend to fail. Hence, (Tengeh and Lose 2015: 7(10) believes that entrepreneurial skills shared by business incubators with incubated entrepreneurs, helps them to become well-developed and balanced in their business operations.

**Table 6. Lack of Mentoring Can Cause Business not to Grow**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	15	25.0	25.0	25.0
	Little	9	15.0	15.0	40.0
	Uncertain	6	10.0	10.0	50.0
	Strongly	26	43.3	43.3	93.3
	Very strongly	4	6.7	6.7	100.0
	Total	60	100.0	100.0	

### 3.8. Involvement of Government Officials

Mwobobia (2012:112) also points out that challenges faced by informal businesses are caused by lack of finance, discrimination and problems with government officials. According to Table 7 below it shows that fiftyfive percent (55%) of the respondents strongly believe that government officials are visible and involved in

informal businesses, eighteen percent (18%) is uncertain, while seventeen percent (17%) feels that they are little bit visible not to their satisfaction, and ten (10%) feels that they are not visible at all. If government officials can be properly trained and be 100% available to informal businesses that can make a huge difference.

Looking at the views held by (Mwobobia, 2012:112) it seems that some of the challenges informal small businesses face is a consequence of the government officials, the unwillingness from government officials to support and assist informal small businesses is cause for concern. Which is contrary to the findings of the study, the majority said that government officials are visible.

**Table 7. Visibility of Government Officials in Informal Business for Site Visits and Advise**

		Frequency		Valid Percent	Cumulative Percent
Valid	Not at all	6	10.0	10.0	10.0
	Little	10	16.7	16.7	26.7
	Uncertain	11	18.3	18.3	45.0
	Strongly	27	45.0	45.0	90.0
	Very strongly	6	10.0	10.0	100.0
	Total	60	100.0	100.0	

### 3.9. The Actual seed Fund Received

Table 8 shows that sixty eight percent of the respondents received R25 000 seed fund, whereas seventeen percent (17%) R30 000, twelve percent (12%) R20 000 and three percent (3%) received R15 000 individually.

The amount of seed funding provided to the informal businesses between year 2015 - 2018 rates between R15 000 and R30 000 per entrepreneur.

**Table 8. Amount of Seed Funding Granted by Cape Winelands Municipality to Informal Small Businesses**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	15000	2	3.3	3.3	3.3
	20000	7	11.7	11.7	15.0
	25000	41	68.3	68.3	83.3
	30000	10	16.7	16.7	100.0
	Total	60	100.0	100.0	

### 3.10. Seed Funding Usage

Table 9, eighty three percent (83%) of respondents spent their seed funding on business equipment, while eight percent (8%) spent it in maintenance of their business infrastructure, seven percent (7%) bought inventory, and two percent (2%) was spent in other business functions.

Ngorora & Mago, (2013:4) recommended that the government should focus on providing equipment and develop infrastructure to support profitable businesses. If government can do as the literature recommends that would boost informal business growth, they can use the seed funding money for the business operations not to start from scratch with the equipment and maintenance.

**Table 9 The Business Function in Which the Money Was Used**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Maintenance	5	8.3	8.3	8.3
	Equipment	50	83.3	83.3	91.7
	Inventory	4	6.7	6.7	98.3
	Others	1	1.7	1.7	100.0
	Total	60	100.0	100.0	

### 3.11. Other Challenges Affecting Growth of Their Business

In this question one respondent mentioned different challenges at a time

- From the response of 16 (27%) respondents it has been mentioned that financial assistance is one of major challenges to their business growth
- A number of 16 (27%) respondents indicated that they need space to run their businesses, most of them are operating from garages at home and they do not have space to put equipment and for storage
- Crime is one of the challenges that the respondents face 2 of them (3%) mentioned that they experienced break ins, robbery and burglary in their businesses.
- Three of respondents (5%) believes that lack of mentoring and coaching has an impact in the business failure
- Business and financial management training has been identified as a challenge by the number of 9 (15%)
- A lack of Infrastructure in terms of building, store room, computers, machinery more advanced equipment, , more material, access to marketing has been identified as major challenge by 6 of respondents (10%)
- One (1.7%) respondent mentioned that he lacks marketing skills, he wishing that there could be a training on marketing only
- One (1.7%) respondent said politics between officials within the municipality affects the support that they waiting for

- Competition has been identified as another challenge by 6 (10%) respondents, they say that it puts too much pressure on them, and also it affects their pricing in order to win a tender they charge less and it results in low profit
- Seven (12%) respondents' businesses are affected by transport challenge, they pay a lot of money to hire transport in order to reach their market, and others need to deliver for their catering service
- To save or invest money is a challenge to one (1.7%) of the respondents as the money made from the business is also taken care of by the family
- Government coaching and processes are taking too long, that is what three (5%) of the respondents see as a challenge or cause to their business failure
- Two (3%) of the respondents wish that the seed fund can be more what they got in order to buy enough equipment and material to start the business
- Retaining loyal customers has been identified as one of the challenges by 3 (5%) respondents, they wish to have contracts with big companies or factories in order for them to have commitment and stability in their businesses
- There is a lack of access to financial facilities 2 (3%) of the respondents said due to lack of security they cannot get any financial help to sustain their businesses
- One (1.7%) of the respondents does not have any other challenges that he feels he needs to explain other than what he has ticked on the questionnaire
- Rental cost is a challenge to 3 (5%) of the respondents, they may feel that some of the profit goes to monthly rental
- Two (3%) of the respondents feel that stagnant growth is a challenge as they cannot set any targets or goals for their businesses
- Water restrictions have been mentioned by 6 (10%) of respondents that it affects their business operation a lot, they spend +/- R1 000 daily for water
- Weather conditions have an impact in running businesses, two (3%) respondents said that a shelter is needed to display, and for production purposes

### **Summary of Questions 3.11 (open questions)**

The majority of respondents confirmed that their business performance is constantly poor due to the following issues:

Major challenges they are experiencing on their daily business operations is lack of finances, business space / shelter, coaching and mentoring, business training and marketing skills, infrastructure, competition, transport and rental costs, loyal customers and more crime.

Seemingly, most of the entrepreneurs share common challenges the literature survey have shown more researchers written about similar findings and made recommendation that may assist the informal small businesses who received seed funding from Cape Winelands :

A study done by Ngorora (2013:9) found the following aspects as a major cause that hinders growth and success of rural entrepreneurship in Nkonkobe Municipal area: small and distant markets, corruption, lack of marketing initiatives, scarcity of equipment. Due to poor transport infrastructure rural entrepreneurs in Nkonkobe Municipal Area face serious marketing challenges. Whereas, Choto (2015:40) also identified the reasons why there is a need for entrepreneurs to join business incubation it helps them to get access to technology and access to business networks, to address funding challenges, to improve their business skills and expertise.

#### **4. Conclusion**

This study investigated impact of government intervention to the growth of informal small businesses who have received seed funding. The main purpose was to explore the effect of government support and policies to the growth of the informal businesses who have received seed funding.

The most outstanding challenges found that affects to the growth of these informal small businesses is lack of finance, instability of businesses, limited business space, crime, lack of infrastructure, mentoring and coaching, business management and marketing skills, transport.

Additionally, all of the Informal small business owners stated that they did receive support from the government and although government policies most of the time poses red tape which makes processes difficult for the informal small business to follow.

#### **5. Recommendations**

Government need to re-assess its strategies and systems, It is empirical evident that informal small businesses can contribute towards economic development which may lead to job creation and poverty reduction. More resources need to be realised towards entrepreneurship training and education.

Informal small business owners agreed that they did receive seed funding of R15 000 to R30 000 which they used to buy equipment. Some of the equipment was not enough to expand the business. If government is seriously into improving small entrepreneurs they need to increase seed fund amounts to cover at least the infrastructural development, government also need to appoint officials or incubators to support the businesses until they become sustainable, bearing in mind that the informal business cannot get loans from the banks or other financial institutions due to lack of security and business stability.

The Minister of Business Development even encouraged non-South Africans to share their success strategies with their South African counterparts (Mbata, 2015:18). Ngorora and Mago (2013:2) claim that information networks and communication infrastructure are also poor in rural areas. If the government can improve access to information and communication channels to reach rural entrepreneurs, then challenges affecting the growth of informal businesses will decrease because they will be able to contribute to the government's plans in this regard.

## 6. Future Research

Nonetheless, the informal small business owners acknowledged that they did receive seed funding from government. Government support structures and policies were analyzed and the findings included a lack of access and restrictions to qualify, as well as a blue print to manage financial assistance / grants received. There is a gap identified between the alignment of government business development policies and the informal businesses, as well as mentoring and coaching, hence lack of finance, instability of businesses, limited business space, crime, lack of infrastructure, business management and marketing skills, transport has been discovered as challenges hindering the growth of informal small businesses.

Moreover, Future research should investigate to what extent government support and policies meet the needs of the informal small businesses and also be geared towards discovering the possible ways to rescue informal small businesses as well as the amendment of government policy.

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## Developing and Managing Product Development for Small and Medium Enterprises (SMEs) in South Africa

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**Abstract:** This article examines new product development (NPD) in South African Small and Medium Enterprises (SMEs) in South Africa. The main aim of the research was to establish SMEs' approach to developing and marketing new products. The high failure rate of SMEs originate from intense competitive and sustainable. One way for the SMEs to be competitive is by constantly developing new and unique products. The problem is that it is not easy for SMEs to develop new products because they lack marketing skills to develop these new products. Limited research was conducted on the marketing factors affecting new product development by SMEs in South Africa, which create a gap for this article.. Quantitative method was used to collect the data in the form of a survey. The sample size for this study was 100 respondents. Purposive sampling was used as the researcher needed to reach a target sample quickly and the sampling for proportionality is not the main concern. The owners of SMEs were selected using the database to invite them to participate in the workshop therefore; the sample frame was readily available which minimized the selection bias. The Cronbach alpha for the scale used was 0.872, indicating the satisfactory internal consistency reliability. The researcher found that SME's produce high quality products while the research also confirms that they offer a broad range of products. The research further finds that 71% of the SME have innovative ability to bring new products in the market, including improvement. Although SMEs appear to be doing good on factors like product quality, packaging and innovative ability, their products are not distinctive and unique while they also produce products that are not necessarily different from those of competitors. SMEs play a vital role in the economy of South Africa, therefore their sustainability is crucial. This study will contribute to the SMEs owners on factors to consider when developing a new product. Since there is limited research on marketing factors affecting new product development, this study also shed light on how each factor can be incorporated and implemented during new product development process. This study found that SMEs in South Africa are doing well in terms of implementing the marketing factors for new product development. Despite the outcomes indicating that the SMEs in South Africa seem to be doing well in terms of new product development and the marketing factors, it is worth noting that SMEs have different needs at different stages of development and they still need intense support from the government.

**Keywords:** New product development; product customization; product quality; product relevance; SME

**JEL Classification:** L33

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## 1. Introduction

SMEs form the backbone of most economies, especially in South Africa as the country experience challenges with high unemployment rates. A strong SME sector is as an important vehicle to address high unemployment as they create job opportunities. The importance of this sector is well documented as SMEs comprise over 90 percent of South African business operations and contribute 50 percent to job creation. However, for the SMEs to be successful in an ever-increasing competitive market, new product development needs to be a priority.

New product development is the creation of products with new or different characteristics that offer additional benefits to the customer (Yan 2010). Whereas, Ebrahim, Ahmed & Taha (2010) regard product development as the transformation of a market opportunity and a set of assumptions about product technology into a product available for market. Cengiz, Ayyildiz & Kirkbir (2014) and Ebrahim, Ahmed & Taha (2010) maintain that new product development is indeed a critical factor in ensuring the continued survival of SMEs. Nicolas, Ledwith & Perks (2011) and Mosey (2005), emphasize that SMEs contribute to the development of the country's economy. The focus of this study is on SMEs in South Africa as Makakane (2014) observe there are 2.8 million SMEs, more than in any other province. Their importance to the South African economy is well known as they contribute 52%-57% to GDP, provide 60% employment opportunities and contribute more than 40% of the country's total remuneration. Secondary research studies conducted by Mahembe (2011); Mutalemwa (2015), Abor & Quartey (2010) and BankSeta (2015) have used different definitions for SMEs but for the purpose of this study the definition of the Small Enterprise Development Agency (2016) will be used. They describe a SME as an organisation that has relatively small share of their market place and owners or part owners manage it in a personalized way. Next, the problem statement will be discussed.

## 2. Problem Statement and Main Aim of the Research

The BankSeta (2010) emphasises the importance of SMEs as productive drivers of inclusive economic growth and development in South Africa. Therefore, SMEs need to remain competitive and sustainable. One way of being competitive and ensuring sustainability is by constantly developing new and unique products. Huan, Brooksbank, Taylor & Babbis (2008:283) note that higher performing SMEs create new innovative products more frequently than the lower performing SMEs. The problem is that it is not easy for SMEs to develop new products because of certain marketing related factors like product customization, product quality, product innovation and product relevance preventing it. Abor & Quartey (2010) identify these factors as challenges, although, overcoming them will result in the

sustainability of the SMEs in the end. Research on these factors are limited, which create a gap for this article. Therefore, the main aim of the research was to establish SMEs approaches to developing and marketing new products in the Gauteng area.

### **3. Literature Review**

Small and Medium Enterprises (SMEs) play an important role in a country's economic development. Ramukumba (2014) regards SMEs as the main source of employment generation. This rises the need to be sustainable and competitive at all the time. The importance of SMEs in South Africa, New product development approach as well as the new product development marketing factors are outlined in this study.

#### **3.1. The Importance of South African SMEs**

SMEs play a major role in developing the economy of the country and according to Abor & Quartey (2010:219), SMEs represent over 90% of private business and contribute to more than 50% of employment and of GDP in most African countries. "Similarly in the Republic of South Africa, it is estimated that 91% of the formal business entities are SMEs, they therefore have a crucial role to play in stimulating growth, generating employment and contributing to poverty alleviation, given their economic weight in African countries" (Abor & Quartey 2010:218). SMEs are seen as the main conducive force that serves the social goal of equitable economic distribution and they also generate employment, stimulate regional development and promote indigenous entrepreneurship, which in turn influences the competitive performance of countries (Maladzhi 2008:1).

SMEs in South Africa employ more people than private sector and government combined. They are generally regarded as creators of wealth and are seen as a stimulus of economic growth that result in the provision of jobs as well as an increase of the market share (Makakane 2014). According to (Maladzi 2008:8) The Department of Trade and Industry developed a strategy to support SME's as they are one of the key role players in growth of the country's economy. This strategy was developed to support the SME's and the following objectives were the foundation of this initiative:

- To facilitate greater equalisation of income, wealth and opportunities
- To create long term jobs that will be supported by policies
- Removing and addressing every obstacle that prevents SMEs contributing to the overall growth
- To create an environment where both large and small enterprises will trade comfortably without any threatening experiences

- To influence the SMEs to adopt a standard that will allow them to trade globally without any reservations.

As illustrated above, SMEs play a significant role in South African economy as they contribute to the employment as well as the GDP accordingly, therefore, the South African government has to create an environment which is conducive for them to operate properly and profitably (Abor & Quartey 2010:219). Next, the approach of SMEs to new development will be discussed.

### **3.2. Approach of SMEs to New Product Development**

According to Cengiz, Ayyildiz & Kirkbir (2014) new product development is the development of a product in the form of original products, improved products, modified products and new brands developed through an organization's research and development efforts. One of the main contributing factors to the sustainability of SMEs' as Huang, Soutar & Brown (2002:28) observe, is new product development. Secondary research (Ebrahim, Ahmed & Taha 2010; Cengiz, Ayyildiz & Kirkbir 2014; Mansor, Yahaya & Okazaki 2016) regard product development as the transformation of a market opportunity and a set of assumptions about product technology into a product available for the target market. Maladzhi (2008:1) further observes that the importance of new product development has grown dramatically over the last decades and is now the dominant driver of competition in SME sector.

Secondary research conducted by Maladzhi, (2008) and Kalkan (2014); emphasize that SMEs must improve their innovation abilities so that they will expand into new markets or even arrest margin erosion as well as to protect their current market share. New product development can ensure that SMEs increase their market share, which will result in their long-term existence in their respective markets. Without the introduction of new products as Yan & Makinde (2011) underline, deterioration of the SME's market position is inevitable and they will stagnate. Yan & Makinde (2011:220), further emphasize that product development will also assist SMEs to be competitive in terms of wide product range as well as lower prices to consumers because of the resulting higher productivity levels.

Adapting to the product development processes for SMEs should in comparison with the larger companies as Nicholas, Ledwith & Perks (2011:229) note should not be difficult as SMEs hold a number of significant advantages. These advantages according to Nicholas et al. (2011:229) include a shorter decision-making process due to fewer layers of management, greater functional integration, less resistance to change and a more innovation friendly atmosphere. De Toledo, De Sousa Mendes, Jugend & Da Silva (2013:57) emphasize that the existence of new product strategy has long been recognized as a core requirement in the new product development. Small manufacturing companies as observed by Millward & Lewis (2005:380) are often in a prime position to identify new product opportunities because of their close

working relationships with customers and suppliers. SMEs also exhibit a greater level of confidence than larger companies do in their ability to be flexible and make change (Kalkan 2014). Nicholas et al. (2011) advise they should use their flexibility to get information on ever-changing customer needs so that they can develop new products and market them successfully. Next, new product marketing factors are product customization, product quality, product development and product relevance will be outlined.

### **3.3. New Product Development Marketing Factors**

Previous studies (Ramukumba 2014; Kalkan 2015 & OECD 2004) emphasize that SMEs should focus on generating funds to invest in new sustainable products, yielding a sustainable future for them. Failure to respond to competitive new product introductions with appropriate speed, as Maladzhi (2008:2) observes, can result in late market entry or a permanent loss of market share and even loss of profits. SMEs have to overcome new product development marketing factors by ensuring that they adapt to the ever-changing product development processes. New product development marketing factors are product customization, product quality, product development and product relevance.

#### **3.3.1. Product Customization**

Product Customization is as outlined by Du, Jiao & Tseng (2006) recognized as a method used by manufacturers/suppliers to producing products that cater for customers' individual sizes, tastes, styles, needs or expressions. Nicholas et al. (2011:227) state that it is of vital importance for any organization to integrate their activities in order to respond to the market needs to keep their potential customers. (Nicholas et al. 2011:228) further emphasize that forward-thinking companies aim to improve their product development processes by benchmarking their current development practices against those of other companies. When SMEs, like any other organization, launch a new product, many factors affect the success of the product: timing, marketing, ease of use, price and availability; but across the board (Barnes 2017), observes that one factor that makes or breaks the success of a new product is relevancy.

Failure to understand customer needs, as observed by Yan (2010:1072) is one of the main reasons why newly developed products fail in the market. According to Barnes (2017), a product not designed to fit into the lifestyle of the SME customers it will fail. Millward & Lewis (2011:380) outline sharp and early definition in order to target differentiated and superior products as one of the factors of success for the new product development process.

#### **3.3.2. Product Quality**

Agbor (2011:8) defines product quality as the totality of features and characteristics of product or service that bear on its ability to satisfy stated needs, therefore, SMEs

have to strive for a good competitive quality when they think of product development to ensure customer satisfaction. Customers as Agbor (2011:1) points out are the important stakeholders of the SME and their satisfaction is a priority to management. Quality and other product features such as appearance, components and capabilities are considered one of the differentiating factors contributing to customer satisfaction as Ramukumba (2014:20) argues that repeat customers are a solid base for customer loyalty and for customers to be loyal; they require a quality product that satisfies their need. Lukas & Menon (2004:1258) outline that the strategic significance of product quality is gradually being transformed from a point-of-difference to a point-of-parity by the globalization of markets and the associated diffusion of technological know-how which means that the principles of product quality are reasonably well understood by competitors and thus, are much less of an exploitable advantage.

### **3.3.3. New Product Development**

SMEs as Wonglimpyarat (2015:297) observes, often face challenging factors during the process of new product development and marketing newly developed products. These challenges, specifically marketing challenges, entail tough competitive conditions (Chiliya, Herbst & Roberts-Lombard 2009:71), low demand for products (Hubner, Kuhn & Sternbeck 2010), poor locality of the small business (Manana, 2009), ineffective marketing of products and lack of market knowledge (Fuller 2004; Hogarth-Scott et al. 2006:6; Mackintosh & Tynan 2004). The challenges may also include lack of access to resources, a lack of external contacts and the SMEs being dominated by the owner's or CEO's personality (Nicholas et al. 2011:229). Toledo, Mendes, Jugend & Da Silva (2014) add that marketing skills include aspects such as SMEs' capacity to assess the new product market potential, to understand the target-market needs and to translate that information into product specifications.

Secondary research (Ramukumba 2014; Van Scheers 2011) indicate that the South African SME challenge is to improve the marketing skills of business owners to enable them to develop new products. New product development in SMEs, like in big businesses, as (Yan & Makinde 2011; Maladzhi 2008) observe is not always successful and its failure rates can be as low as one out of every three products and as high as 90 percent of new products, which are withdrawn within a year of their introduction. Makakane (2014) further observe that between 33 percent and 60 percent of all new products that reach the market place fail to generate an economic return. Maladzhi (2008:1) emphasizes that new product factors such as new technology, improved communications, increased profit demands and shorter product life cycles have added to the inherent risk of non-sustainability of new product development.

### **3.3.4. New Product Relevance**

Product relevance is as Barnes (2017) explains is the process of producing a product, which is relevant to the customers' desires and lifestyle. Once the newly developed product is ready to enter the market place, there are marketing challenges, to overcome in order to ensure the successful market entry for this product. Abor & Quartey (2010:218) note that SMEs struggle with a number of new product marketing factors such as lack of access to appropriate technology; limited access to international markets; South African laws, regulations and rules; weak institutional capacity, and limited finance. Mahembe (2011) emphasizes that lack of market research, access to markets and developing relationships with customers, low production capacity hamper successful marketing. Previous research by Mansor, Yahaya & Okazaki (2016) and Ebrahim, Ahmed & Taha, (2010) outline that SME's fail to manage new product development because they are unable to cope with pressure exerted by external factors. These factors include as well lack of business management skills, lack of creativity as well as sound leadership skills often leads to very little strategic vision in the company and this will influence the commitment of the workforce and often cause the downfall of a business. Secondary research (Yan 2010; Hlatshwayo 2015; Kalkan 2014; Mansor, Yahaya & Okazaki 2016; Ebrahim, Ahmed & Taha, 2010) further indicate that new product development is one of the factors that can contribute to the sustainability of SMEs as well as the success thereof. The research methodology will be outlined.

## **4. Research Methodology**

Quantitative method was used to collect the data in the form of a survey. The goal of a survey as (Cooper & Schindler 2011:243) outline is to derive comparable data across subsets of the chosen sample so that similarities and differences can be found. The survey was chosen as the method suitable for the SMEs who were the community engagement workshop participants as the researcher wanted to measure the difference and similarities amongst the respondents – SME owners/co-owners.

The sample size for this study was 100 respondents. The questionnaires were distributed to the 100 respondents to complete after the workshop. The questionnaire was of a self-completion nature.

Purposive sampling was used as the researcher needed to reach a target sample quickly and the sampling for proportionality is not the main concern. The owners of SMEs in South Africa were selected using the database to invite them to participate in the workshop therefore, the sample frame was readily available which will minimize the selection bias which also improves the reliability of the results. the Cronbach alpha for the scale used was 0.872, indicating the satisfactory internal consistency reliability. Data was captured from a questionnaire into a Microsoft



excel spreadsheet. SPSS was then used to compile, interpret and report the results/findings. Descriptive statistics were generated and the results will be reported in the following section.

## 5. Results And Findings- Will Be Done As Soon As Stats Has Been Finalised

### Empirical Findings

The demographic data of the SME owners who participated in this research covered gender, age range, level of education, number of employees employed as well as the number of years respondents had been in business. As indicated previously, 100 SME owners participated in the survey. Of the SME owners participants who answered the question on gender (N=77) 35% were male (n=27) and 65% were female (n=50). Out of the 80 (n=80) participants who answered the question on age, 1% (n=11) of the participants to be over 50 years; 29% (n=23) were in the 21-30 age range, 33% (n=26) were in the 31-40 age range and 25% (n=20) were in the 41-50 age range.

Demographic		N	Percent %
Gender	Male	27	35
	Female	50	65
	Total	77	100
Age	21-30 Years	23	29
	31-40 Years	26	33
	41-50 Years	20	25
	>50 Years	11	13
	Total	80	100
Number of years in operation	Less than a year	40	52
	Between 1 and 2 years	12	16
	Between 3 and 5 years	11	14
	Between 6 and 10 years	8	10
	Over 10 years	6	8
	Total	77	100
Number of years in operation	Never completed Grade 12	19	25
	Completed Grade 12	33	42
	Diploma	16	21
	Degree	2	3
	Postgraduate qualification	7	9
	Total	77	100

The researcher further found that 52% (n=40) of the SME participants had been in operation for less than a year; 16% (n=12) were in operation for between 1 and 2 years, 24% (n=19) have been in business for a period of between 3 and 10 years, only 8% (n=6) have been in business for over 10 years. In terms of the qualification of the SME owners the researcher found that 25% (n=25) of the participants have never completed Grade 12, 42% (n=33) have completed Grade 12, 21% (n=16) of them have a diploma, only 3% (n=2) have a degree while 9% (n=7) of the participants hold a postgraduate qualification.

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly agree</b>
We produce products of high quality	4%	7%	11%	43%	35%
We offer a broad range of products	7%	10%	17%	41%	25%
Products are certified by authorized organization e.g SABS, proudly SA	13%	16%	17%	28%	26%
Products are branded	12%	17%	18%	23%	30%
Products are packaged according to customer requirements	7%	12%	18%	38%	25%
Product are distinctive and unique	7%	7%	21%	41%	24%
We emphasize product styling and design	7%	9%	22%	38%	24%
Our products are designed according to customer specifications	5%	11%	19%	41%	24%
We introduce good products ideas that match current trends	4%	8%	17%	43%	28%
We have innovative ability to bring new products in the market, include improvement	8%	4%	17%	44%	27%
We introduce new products from time to time	7%	12%	17%	42%	22%
/Product design is exciting and attractive	8%	11%	13%	43%	25%
We develop unique products from those of our competitors	9%	10%	25%	31%	25%

Our products are standardized and are similar for all our customers	6%	13%	23%	34%	24%
Ensure that our products are what customers want to buy	11%	3%	14%	37%	35%
We develop new products to keep up with the changes in the market	8%	8%	16%	45%	23%
We offer different product designs and quality for different types of customers	6%	8%	16%	41%	29%

The researcher found that SME's produce high quality products while the research also confirms that they offer a broad range of products. The research further finds that 71% of the SME have innovative ability to bring new products in the market, including improvement. Although SMEs appear to be doing good on factors like product quality, packaging and innovative ability, their products are not distinctive and unique while they also produce products that are not necessarily different from those of competitors.

### Factor Analysis

Factor analysis is a tool which is of great importance the can be used in the development, refinement and evaluation of tests, scales and measures that can be used when conducting research (Williams, Onsman & Brown 2010:1). Williams et al. (2010:2) further emphasize that factor analysis is considered to be the method of choice for interpreting self-reporting questionnaires. As depicted on the table above, 17 items were analysed and the results yielded into 6 factors. Varimax rotation was performed and factor loading less than 0.5 were excluded from the analysis. Although Hair, Black, Babin & Anderson (2010) consider factor loadings of 0.3 acceptable, for the purpose of this study and based on the sample size, the score of 0.5 and above is deemed acceptable.

Reliability as outlined by (Mathu & Tlare 2017:66) refers to the degree to which a measure was consistent and stable in measuring what it was intended to measure. Reliability occurs when a test measures the same thing more than once and results in the same outcomes (Van Zyl 2014:115). Cronbach's Alpha was used as a tool to test reliability of the constructs and the constructs loaded a Cronbach alpha of between 0.698 and 0.828. Validity refers to the degree to which the measurement item actually measured what it claimed to measure (Mathu & Tlare 2017:66).

	C1. New product relevance	C2. Product customization	C3. Product quality	C4. New product development
We develop unique products from those of our competitors	<b>0.618</b>			
Our products are standardized and are similar for all our customers	<b>0.576</b>			
Ensure that our products are what customers want to buy	<b>0.836</b>			
We develop new products to keep up with the changes in the market	<b>0.798</b>			
We offer different product designs and quality for different types of customers	<b>0.621</b>			
Products are packaged according to customer requirements		<b>0.770</b>		
Our products are designed according to customer specifications		<b>0.750</b>		
We produce products of high quality			<b>0.864</b>	
We offer a broad range of products			<b>0.881</b>	
We introduce good products ideas that match current trends				<b>0.561</b>
We have innovative ability to bring new products in the market, include improvement				<b>0.546</b>
We introduce new products from time to time				<b>0.798</b>
Product design is exciting and attractive				<b>0.566</b>
Eigen Value = 64.623	<b>38.451</b>	<b>11.395</b>	<b>8.627</b>	<b>6.150</b>
Cronbach alpha	<b>0.828</b>	<b>0.698</b>	<b>0.698</b>	<b>0.726</b>
Mean score	<b>3.676</b>	<b>3.650</b>	<b>3.825</b>	<b>3.717</b>
Standard deviation	<b>0.919</b>	<b>0.988</b>	<b>0.986</b>	<b>0.884</b>

Based on the analysis of the satisfactory 4 factors, factor 1 (new product relevance) loaded 5 items which consisted of items relating to new product relevance. Li & Lin (2015) found that three of the technology factors, including product relevance, product superiority and customer familiarity, facilitate the success of new product

adoption. It appears that SME's see the importance of product relevance and they develop products that are relevant in the market and are what the customers want to buy.

Factor 2 loaded two items that in focused on the SMEs and their efforts on product customization. Du, Jiao & Tseng (2006) outline that product customization aims at meeting customer's individual needs and maximization of customer-perceived value. The results above indicate that the SMEs do consider producing product according to their customer requirements. Factor 3 also loaded 2 items which concentrated on the SMEs product quality. It appears that SMEs do see the value of producing quality products for their customers in their respective market. Quality as per Agbor (2011) is the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs.

## **6. Recommendations**

Competitive advantage is one of the concepts which keeps the organization on their toes, striving to get competitive advantage over their competitors. The finding in this study reveal that SMEs in South Africa are doing well in terms of product development factors in terms of product customization, product quality, product relevance and product innovation. This could lead to a healthy competition in the market and everyone has to work twice as hard to get a competitive advantage over his/her competitors.

The market conditions and customer needs are changing continuously and this means SMEs still need to put their emphasize on continuously establishing new products to meet or match these ever changing needs of customers. The main aim of the SMEs should be focused on matching customer requirements, needs, wants, desires and buying patterns with the capabilities of the organization, based on the skills and resources available to the business organization, leading to the issue of core competence (Dirisu, Iyiola & Ibidunni, 2013:258).

This study revealed that although the products are customized based on individual customers' needs/specification, which makes their products relevant and addressing the ideal needs of their customers. The main issue is the fact that the standard remains the same for their products. This raising the need for SME's to pursue continuous improvement and always striving to improve the standard of their products.

The SMEs' products are not different from those of competitors which will make it easier for customers to switch from one SME to the other. The SMEs need to put their emphasis on product differentiation. Differentiation as outlined by Dirisu, Iyiola & Ibidunni (2013) is when a firm's product outperforms rival products in the provision of a feature such that it faces reduced sensitivity for other features. This

means that they need to produce products that are different from those of competitors and as a result will give them a competitive edge over their competitors.

## 7. Limitations

The main limitation for this study is that it was focused on the SMEs in Gauteng. The findings of this study, therefore, cannot be generalized to all SMEs in South Africa. Future studies could investigate SMEs for provinces in South Africa. This study focused on the new product development factors relating to marketing, therefore, other studies could focus on other new product development elements like technology, manufacturing processes etc.

## 8. Conclusion

The aim of the research was to establish SMEs approaches to developing and marketing new products in the Gauteng area. SMEs constitute a vital element of the development for South Africa and their contributions in terms of job creation, production capabilities and income generation is widely recognized. SMEs value the need to produce high quality for their customers and also offer broad range of products. Although their products are not branded, they are always distinctive and are designed and customized according to customers' specifications. This makes their product more relevant to the customer needs. Although the new products are customized as per customers' specifications, the standard of the products is always similar for all their customers. The majority of SMEs in this study were owned by Females between the ages of 21 – 40 and have been in operation between 1 month - 2 years. The new product development for the SMEs in South Africa is based on ideas that match the current trends and they develop the products to keep up with the changes in the market. This study found that the SMEs in South Africa produce new products from time to time and they also have the innovative ability to bring new products in their respective markets. Despite the outcomes indicating that the SMEs in South Africa seem to be doing well in terms of new product development, it is worth noting that SMEs have different needs at different stages of development and they still need intense support from the government.

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## The Neo-Classical Perspective and Marxian Prediction of the Global Financial Meltdown

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**Abstract:** Neoclassical economists backs the views of the classicists that the capitalist economic system has an inbuilt mechanism' to correct the ills of any economy that adapts this system. The Marxists, on the other hand, opposed the capitalist system and maintained that the former has the seed of its own destruction inherent in the system. Marx himself predicted that capitalism was full of crisis and since his prediction, three major crises had taken place and all had their origin in the United States. The first one took place in the 1830s and was limited to some European countries, The second one took place in the 1930s and was described as the Great Depression - with a greater spread because of improvement in communication. The most recent one which started in 2008 is described as the Global Financial Meltdown and has the greatest spread because of the impact of globalization. Because of this particular crisis, die-hard capitalist countries are now thinking in the direction of socialism and it is not uncommon to hear of terms like Regulation, Nationalization, Stimulus Packages, Reforms, and Government Intervention, among others. Some recommendations have been made as to how Nigeria could come out of the biting financial crisis.

**Keywords:** Neoclassical; Marxist; Capitalism; Socialism; Great Depression; Financial Meltdown

**JEL Classification:** O16

### 1. Introduction

Neoclassicism is usually applied to the economic thought which flourished in Europe and North America between 1870 and World War I. It emerged as a consequence of the failure of some of the natural laws of the classical economists to work in the changing world of the late 1800s (Iniodu and Ukpong, 2001). Anyanwu and Oaikhenan (1995) maintained that the neoclassical macroeconomic thought is associated with the marginalist revolution of the mid 19<sup>th</sup> century and in the UK were developed in the works of Jevons, Marshall and Pigou.

On the other hand, Marxism is a socio-political and an idealistic economic system and/or ideology that would result from the destruction of the capitalist system and is

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characterized by the means of production and distribution being collectively owned and controlled by the state (Ande, 2008). The unique feature of Marx's socialism was his historical approach to the subject of his analysis, and his materialist interpretation of history. This approach, which came to be known as Historical Materialism, enabled him to identify and explain the events which determine the direction of movement of a social system.

### **1.1. Neo-Classicism and Marxism Compared**

Neoclassicism is primarily concerned with refining the principles of price and allocation theory, marginalism and the theory of capital and related aspects of economics. It thrives in the midst of social problems and hardships such as long hours of labour, dangerous and unhealthy working conditions, the preponderant economic power of employers on bargaining with workers, usury, the rise of monopolistic business, and insecurity in old age, among others (Oser and Blanchfield, 1975).

Contrarily, Marxism supported movements to encourage communism, government intervention as well as trade unions, to ameliorate conditions by controlling the economy, getting rid of abuses, and income redistribution (Oser and Blanchfield 1975). In each case, the conflicts that would arise from class struggles would destroy the old system and create a new one. But, up to and including capitalism, Marx argued that each new system that would be created would also be based on classes, antagonistic classes. He believed that capitalism would be the last class-based system of economic organization; the system that would become apparent once it has been obliterated would be a more rational socialist economy.

Neoclassicism or marginalism, the economics of conservatism, favoured all those whose interests committed them to the status quo, who resisted the currents of change. This type of theory' favoured employers (even though most of them did not really understand it) by opposing unions and by attributing unemployment to wages that were inflexible on the downward side. It defended land owners against Ricardian rent theory. This school favoured the wealthy who generally were opposed to government intervention that might tend to redistribute income.

Akpakpan (1999) maintained that Marx argued that throughout history, the transition from one system of economic organization to another was due to class conflicts. The conflicts were between the class which owned and controlled the forces of production to produce goods and the class which do not own and control the forces of production. These conflicts arose because changes were taking place in the forces of production in response to changes in demand. Changes were resisted in the area of social relations of production, that is, in the ownership and control of the productive-facilities in the sharing of output.

Concerning the method of analysis, the neoclassicists developed new and powerful tools of analysis, especially geometrical diagrams and mathematical techniques. Economics became a more exact science and conditions of demand were given importance as one set of determinants for prices of both final goods and factors of production. Fundamental assumptions underlying economic analysis were explicitly stated by the marginalists. The methodological controversies they aroused finally led to a separation of objectives and verifiable principles that are based on certain assumptions and principles that depend on value judgments and philosophical outlook.

According to Iniodu and Ukpong (2001), Marx was influenced by Hegel's dialectic who postulated that knowledge and progress occurred through a process of opposing ideas or forces. An existing idea or thesis, is at some point confronted with an opposing ideas, antithesis, and there is a struggle of some sort. The outcome of the struggle is a synthesis, which may later on become a thesis and the process starts again. Marx adopted Hegel's dialectic to explain the stages of economic development. According to Marx, history is a dialectical process characterized by struggles between social classes over the division of social product. This method of analysis is described as Dialectical Materialism or Materialistic Dialectism or Historical Materialism

The marginalist school concentrated on the margin - the point of change where decisions are made to explain economic phenomena. They extended to all of economic theory the marginal principle that Ricardo developed in his theory of rent. The marginalist approach was also microeconomic rather than macroeconomic, and in it, the individual took over centre of the stage. Instead of considering the aggregate economy, the marginalists considered individual decision-making, market conditions and prices for a single type of goods, the output of a single firm, and so on.

Whereas Marx's contribution to economic analysis was the provision of an alternative and illuminating approach to the problems of the subject. Robert Heilbroner (in Akpakpan 1999) argues that Marx created a method of inquiry that imposed his stamp indelibly on the world, a method which permanently altered the manner in which reality would thereafter be perceived.

The neo-classicists continued the classical school's defence of laissez faire as the most desirable policy - there should be no interference with natural economic laws if maximum social benefits are to be realized. They also believed that economic forces generally tend toward equilibrium – a balancing of opposing forces. Whenever disturbances cause dislocations, new movements toward equilibrium occur. They also assumed that people are rational in balancing pleasures and pains, in measuring marginal utilities of different goods, and in balancing present against future needs, They also assumed that rational behaviour is normal and typical and

that random abnormalities will cancel each other out; their approach was hedonistic, for they assumed that the dominant drives are to maximize pleasure and minimize pain (Oser and Blanchfield, 1975).

Contrarily, the concept of class struggles postulated by Marxism does not enhance the existence of equilibrium in the society. According to Marx (in Bhatia, 1981), the record of all previous societies has been based on advancement of class rivalries that took up different types at different eras. To Marx, class is not a functional class in terms of income, but an economic class in terms of its economic interests and these interests are not fixed in the society but are the results of production relations which the society has adopted. In the capitalist mode of production, we have the capitalists, the workers and the middle class. When a new mode of production comes into being, there is an increase in the productive powers of the society because of the superior productive organization which comes about. The existing mode of production is favoured by the class who happen to be favoured by it while those who are oppressed want a change: The working classes in particular want a change because they realize that in the existing set up, they are not able to appropriate the produce which naturally belongs to them. In due course, the society gets divided into clear-cut economic classes and through one or other form of struggle, the existing mode of production is thrown over. In some respects, these new relations are somewhat better for the hitherto oppressed classes also, but given the materialistic dialectism, the new mode of production also comes in conflict with the social relations. Thus, the class struggles go on and as such, equilibrium is not possible. With every crisis, the working classes move to a position of increasing poverty as compared with the capitalist classes. Also, in the process; the middle class is thinned out and it eventually vanished (Bhatia, 1981).

On the part of the classicists, there were few attempts at inductive verification of theories in order to remain a dominant school of thought. At times, hypotheses were framed in ways that excluded testing, but still they believed that the laws, generalizations and theories they postulated were universally applicable.

## **1.2. Business Cycles**

The neo-classicists generally ignored the issue of business cycles based on the firm conviction that Say (1803) was right when he said that supply creates its own demand and economic growth, and this theory was inadequate for underdeveloped countries. Iniodu and U.kpong (2001) postulates that Marx was the first major economist to notice that by the middle of the 19<sup>th</sup> century, "heavy unemployment was quite a frequent occurrence in the developing industrial countries of Western Europe", or the first to realize that the phenomenon required an explanation. He not only built the "trade cycle" into his analysis but said it is an expression of the inner contradictions of the capitalist system. He expected the trade cycles to get

progressively worse" and to lead eventually to the collapse of the system. Marx explained that as employment increases, rate of profit declines and wages remain at subsistence level, uncertainty and instability build up. Competition among capitalists to acquire more physical capital to displace labour continues. This is a fundamental component of modern economics which the neo-classicists did not take into consideration in their explanations but which Marx incorporated in his analysis.

Akpakpan (1999) maintains that one other contribution of Marxism is the explanation of the fluctuations in economic activity in the capitalist system – the periodic bouts and booms and depressions – and the explanation of the phenomenon of monopoly in capitalist production. Bowden (1985) in Akpakpan (1999), states that about the late 1800's and early 1900's, these problems became so serious in the capitalist world that some governments began to interfere with the market process. The United States' government, for instance, passed laws to try to curb the rise of monopolies. The problem of depression was largely ignored in the belief, as the economics of that time taught, that the problem was bound to be temporary, and that the system which was assumed to have an in-built mechanism to correct such ills would deal with it.

The marginalists tried unsuccessfully to stem the tide of social change that threatened to engulf their concepts. Finally, floundering helplessly during the Great Depression of the 1930s, they merged forces with the Keynesians and salvaged something from the wreckage. Rodbertus (in Bhatia 1981) maintained that through its own evolution, capitalism would give way to a state of socialism after government intervention in the economy. This was "Utopia Socialism" and not "Scientific Socialism" which Marx postulated - the inevitable consequence of the evolutionary process through which capitalism would give way to another social system just as capitalism itself took the place of serfdom or feudalism.

## **2. Concentration of Capital**

Marx in his analysis pointed out another aspect of the inner contradictions in the capitalist system of production. It is due to these inner concentrations that the capitalist are always in the race with each other to create and grasp as much of surplus value as possible. To this end, they take certain steps which lead to economic crises, and falling rate of profit, among others. At the same time, the severity of the crises increases with each occurrence. The gap between the value of the goods produced and the corresponding purchasing power coming to the market to purchase them is increasing with every circle and as a result, some capitalists go bankrupt and there is a reduction in the number of capitalists in whose hands the means of production get concentrated. The degree of concentration increases all the more due to the fact that while the number of capitalists are decreasing, the amount of capital to be owned increases through accumulation. The working classes suffer periodically on account

of the phases by which the reservoir of unemployed workers get filled and depleted (Bhatia 1981).

Unlike neo-classical economics, Marxism did not consider capitalism as an eternal thing - it is a passing phase in history. It had evolved out of the past history and carried the seeds of its own destruction. Like every social system experienced in history, capitalism had its own inner contradictions which could be resolved only by its own overthrowing.

### **2.1. Capitalist Accumulation and Crises**

Marx attacked Say's Law of Markets, saying that it applied only to simple commodity production. Self-employed small artisans, seeking to acquire use values, produce commodities in order to exchange them for others they wish to consume. Marx in (Oser and Blanchfield, 1975) went on to say that even under simple commodity, the possibility of crisis exists.

The increase in labour-saving machine and the growth of big business leads to absolute and relative impoverishment of the workers. The tendency towards absolute impoverishment means that the standard of living of workers will fall. Relative impoverishment means that even if standards of living remain stationary or rise somewhat, the percentage share the workers receive of the new value they produce will decline; workers will grow poorer relative to the capitalists. With the workers becoming more impoverished, their will to revolt increases. The proper fall of the capitalist echoes and the expropriators are expropriated.

### **3. Marx's Prediction and the Global Financial Crisis in the Capitalist System**

In analyzing the causes of crises, Marx held that the accumulation of capital leads to over production relative to "needs with capacity to pay", that is, cumulative technological developments and increasing productivity of labour lead to expanded production, but the market expands more slowly because of the limited purchasing power of the workers. Periodic crises occur because supply exceeds demand, and thus, the profitability of production temporarily disappears. If accumulation proceeds rapidly enough, the request for labourers might surpass the quantity of labourers, and thus might lead to a rise in wages.

If the incentive to grow is dull, the speed of accumulation is reduced and the labour cost falls as the economy goes into a slump. Crises are therefore inevitable, and rising wages leave intact the foundations of the capitalist system (Oser and Blanchfield, 1975).

The system recovers from each crisis, however, even though the way is paved for more severe crises in the future. This will arise because some capital values are destroyed, as the monetary value of fixed capital assets collapses in a depression,

some factories close; prices of commodities fall; credit contracts; and wages fall. The fall in prices and the 'competitive struggle give every capitalist an impulse to raise profits by means of new machines, new and improved working methods and new combinations. The depreciation of the value of constant capital tends to raise the rate of profit. "The present stagnation of production would have prepared an expansion of production later on, within capitalist limits", Marx concluded (Oser and Blanchfield, 1975).

### **3.1. Evidences of Global Financial Crises in a Capitalist System like United States of America**

Global financial crisis is a phenomenon characterized by failing financial institutions, frozen credit, volatile stock markets, mounting job losses, and painful cuts in wages of workers, impacting the lives of struggling citizens worldwide. Thus, there is the spread of the financial crisis into the real economy of production, investment, employment, and consumption with serious consequences around the world. The 2008 crisis originated in the USA (as did the two previous ones of the 1830s and the 1930s) because of inadequate regulation of certain exotic instruments in the mortgage security market and it has significant impact on the lives of certain key institutions in the country (Fanimo, 2008). According to Osunkeye (2009), there have been three major economic crises in the history of the USA, which more or less, has spread to other countries. The global spread of the 1830s depression was largely restricted due to limited communication and globalization but it still sneaked across US borders to some European countries.

One hundred years later, in the 1930s, another economic crisis struck the USA and was regarded as the most vicious and therefore referred to as the Great Depression. This particular depression was more global in spread, partly because the world was more closely knit through advancements in communication technology. In 2008, another economic crisis hit the USA and spread to other parts of the world, again because the world had become more than ever before, a "global village". Gordon Brown, the then British Prime Minister stated that the economic crisis more dramatically than ever before, had exposed the true nature of global interdependence.

Interestingly, the causes of these depressions were similar. They all had their roots in careless banks lending. In 1832, after President Jackson had obliterated the Bank of USA which the people had regarded as an enemy, but which in reality, had provided the country with stable currency and prevented state banks from lending freely, there were no more checks on local banks. There came to be a high level of reckless guesswork about land in the 1830s, and these speculators had little troubles in persuading local banks to loan them cash. Consequently, communal land sales rose from 4 million acres in 1834 to 20 million acres in 1836 and this caused disastrous panic in 1837. Banks and business houses closed their doors, thousands of farmers lost their farms through mortgage foreclosures, there was almost total

unemployment among eastern factory workers, and works on canals and newfangled railroads almost crowded to a halt. Then it was described as the most severe depression in the history of USA.

### **3.2. The 2008 Financial Crisis**

The 2008 financial crisis in USA could be traced to the collapse of the housing market and the high default experienced on sub-prime mortgages. Sub-prime lending is the giving of loans to borrowers who do not qualify for the credits. These borrowers got the loans based on their income levels, down payment, or due to the virtue of their credit history. They have been borrowing and paying back and so it is assumed that they will always pay back.

Steve Forbes cited by Osunkeye (2009) stated that through creating excess liquidity, the Federal Reserve Bank made possible a global commodity bubble and a housing bubble. Two government - sponsored enterprises, Freddie Mac and Fannie May, created to provide liquidity for the housing market came to dominate the financing of housing. Half of the mortgages in the USA, over five trillion are either owned or guaranteed by these two entities, which then gave in to empire building and greed. In March, 2007, sub-prime mortgages went as high as \$1.3 trillion in the US and about 25% of it turned out to be bad loans. In all, 9.5% of all mortgage loans were reported to be delinquent. These risks were extensively distributed, leading many investors, corporations, commercial and investment banks, lenders and real estate investment firms to become infected when borrowers could no longer pay back. To compound the problem, housing prices declined daily, affecting the stock market.

Just as in the previous economic crises, there was poor judgement by lenders, speculations by the financial market, high personal and corporate debt, dangerous financial innovations harbouring bad risks and disregard to sound regulations. The financial institutions lent to sub-prime borrowers in droves. They granted Ninja loans which slacked, and this put the stock market in America in turmoil. The financial markets experienced fright and investors began to take their money out of risky mortgage bonds. All these joined hands to bring about the credit squeeze that ravaged not only the economy of the USA, but also the global economy. As in all terminal diseases, the mortgage virus attacked vital organs of the economy. Three major financial institutions - Merrill Lynch, Lehman Brothers, and American International Group (AIG) collapsed. Although the crash of these three institutions happened at the same time, their terminal sicknesses were prolonged.

In summary, the causes of the global financial crisis in the USA which spread globally could be stated as follows: -

- (i) Non-intervention of government in the stock markets: Prices of equities were falling and government failed to intervene to prop up prices. In a situation of falling prices government is supposed to act as a liquidity provider, but because neo-



classical economics prohibits government intervention, it could not do so.

(ii) Lack of efficient/effective laws on capital market operations. These would have helped to eliminate the challenges militating against stock market development because of the resurgence of the bulls.

(iii) Non-regulation of banks: Government is supposed to exercise strict control over banks' rules and regulations.

Banks themselves neither lend money nor borrow money from each other without sufficient collaterals. But the business community was allowed to borrow money without ability to pay back. These were the causes of the crisis which Karl Marx predicted will take place because of the inner contradictions of capitalism.

### **3.3. The Spill Over**

Globalization has integrated different countries' economies such that any ripple in one is bound to spread to others. This is more so when the ripple is taking place in the more advanced countries. For this reason, Americans were not the only one that faced the danger of economic recession. The impacts of the collapse of these major financial institutions on Wall Street spread across the world.

In Europe, credit crunch, high food and energy crises took their toll on the economies. In France, cafes and restaurant receipts went down by 20%, and nearly 3,000 were said to have been closed (Osunkeye, 2009). In Italy, consumer groups led a one-day boycott of bread to protest a 30% price increase. The number of Britons drawing unemployment allowance was at a nine year high in December 2007. Ireland declared itself in recession and government's statistics office said the once ferocious "Celtic tiger" economy had shrunk for the second straight quarter in June 2009. Denmark was in recession at the end of March 2009 and the European commission warned that it could get bad in Britain, Germany and Spain before 2009 ran out. The immediate impact of the credit crisis on the city of London was measured in job losses. From a peak of 353,000 in 2008, London financial district projected to see employment fall to around 291,000 during 2009. According to the Centre for Economic and Business Research, major casualties took place among investment banks, stock brokers and advisory boutiques that acted as intermediaries between companies and investors.

In China, Premier Wen Jiabo was reported to have stated that the recession in the US market would definitely have an impact on China. In 1999, China-US trade stood at only \$102.6 billion. But by 2009, it had risen to \$302 billion. Though, there had been noticeable external decline in Chinese products which cannot be significantly increased in a short period of time. Really, a global slowdown was bound to hit the world's second largest exporter. According to the IMF, Chinese output grew by 11.9% in 2007; 9.7% in 2008; and was projected to shrink to 8.5% in 2009. However, China had been projected to be on its way to becoming the world's largest economy

by 2005, if current trends in its trade, demography, access to natural resources, investments and technological innovations persist.

Even if the real impact of the economic crisis originated in US was not yet in Africa and other developing countries, the fear of it was felt everywhere. For instance, Tanzania feared that the financial turmoil in the US and European Union would make remittances from abroad hard to be realized. There was the fear that in short term perspective crisis could affect exports, imports and remittances.

#### **4. Actions Towards Socialism**

Growing fears that the world was slipping into a downturn had forced authorities everywhere to use every available means to protect their economies. Apart from the Bank of American's acquisition of Merrill Lynch, the US government had given \$85 billion to the American International Group (AIG). The former grand US insurer, which had written \$441 billion worth of swaps on corporate bonds as at June 30, 2008, was struggling to raise money to pay back the loans through sales of its assets. After much debate by the US Congress, it proposed to release \$700 billion to bailout the troubled financial system and kept the companies going. The legislators has been lobbied and warned that if they failed to act, there was the possibility of the biggest financial meltdown in American history. The House Speaker announced a tentative agreement authorizing government to buy up to \$700 billion of toxic assets from financial institutions.

Elsewhere, the Dutch government had proposed to inject over \$13.4 billion into ING, one of its biggest banks, to save it from collapse, while Germany planned to throw in \$32 billion to boost business. South Korea had announced that it will make available a \$100 billion investment fund to troubled businesses to shore up its financial system. Despite the fact that Korea has a huge \$240 billion in foreign reserves, the country was experiencing severe shortage of US dollars as local banks were not able to provide for trade credit. Around October 2008, the UK government committed \$58 billion to save several lending banks in the country. Similarly, the Treasury had seized Bradford and Bingley, Britain's biggest lender to landlords, and in Belgium, Dexia, the second largest European bank was bailed out by French, Luxemburg, Belgian governments by throwing in \$9 billion to keep it afloat. The three governments had similarly thrown in \$16.3 billion to save Fortis Bank, partly nationalizing it.

Earlier, the European Central Bank had tried to calm jittery markets by lending 61 billion Euros to institutions. Central Banks in North America and Asia also injected liquidity to calm fears of a credit crunch and allow borrowers to meet short-term lending needs. Having cut interest rates three times within the past months, the Chinese State Council had authorized \$586 billion of stimulus spending for 2010

and 2011. Late October 2008, Japan, the world's second biggest economy unveiled a \$51 billion package of spending measures to support its economy. In addition, the Bank of Japan also injected \$8.5 billion after the call rate rose to 0.54% against the bank's 0.5% over night target. Apart from the pinch of the global downturn on Japan, the economic crisis is heralding a shift in the balance of financial power from West to East. Nomura, the Japanese Bank in the wake of the economic crisis signed a deal to buy the bulk of the failed Lehman's operations in Europe. Other Asian Central Banks sold the US dollar, reassuring the markets that any effect of any credit crisis would be limited as exposure to sub-prime loans in the region is relatively low. Monetary authorities in Singapore and Hong Kong also announced they were monitoring markets but saw no need to inject cash for now. The Bank of Korea said it would provide liquidity to financial markets should a credit crunch arise due to the sub-prime crises.

Coming to Nigeria, the Central Bank of Nigeria (CBN) announced the reduction of the Monetary Policy Rate (MPR) in September 2008 from 10.25% to 9.75% to prevent any possible negative effect of the global financial crisis on Nigeria's economy which was witnessing bearish run in the stock market. Some other policies announced by the CBN include the reduction of Cash Requirement Ratio (CRR) of banks from 4% to 2% to enable banks to meet up with their cash requirements of customers. By this reduction, it is expected to inject about N150 billion. As at November 17 2008, the federal government of Nigeria reconsidered the Naira redenomination which it had earlier rejected as fallout of the global economic crisis.

All these measures were taken because it affected the economy through impact on the capital market and by extension the banks through their exposure to the capital market, collapsing oil prices and implications for external reserves, fiscal revenue and exchange rate, decline in capital inflows, and trade credit lines to banks, among others (Jamiu and Chesa, 2009).

#### **4.1. Implications of Direct Intervention**

This direct intervention by Western governments and the regulations of their financial institutions is a contradiction of the neo-liberal policy which Western governments have preached for several decades and even made developing economies to adopt. Although these governments have not admitted there has been a paradigm shift in capitalism vis-a-vis socialism, the global crisis has brought back nationalization using different appellation and methods.

The West had advised Third World Countries to take their examples to privatize national industries, abolish subsidies, reduce social economic spending, liberalize trade barriers and de-regulate financial and labour markets. Even before the 1830s, the US government had encouraged a laissez-faire business environment for American business community. President Jackson, who had inherited their philosophy from Thomas Jefferson, saw the role of government as simply "to restrain

men from injuring each other and leave them otherwise free to regulate their own pursuits of industry and improvement". Since then, this freedom has resulted in three economic crises.

One hundred years later, the economic crisis returned in the 1930s (the Great - Depression), President Roosevelt offered what he called a "new deal" to Americans. Although they refused to acknowledge it, the new deal was a slight shift towards socialism. Roosevelt made it clear then to the Americans that he intended to take actions that would help the "forgotten man at the bottom of the economic pyramid". He did that and that began the healing process of the Great Depression of the 1930s. Almost 100 years later, perhaps, after the man at the bottom of the economic pyramid had been forgotten once again, and the inordinate greed of man had been unleashed, disaster struck again.

Now has the world realized that it needs a certain measure of socialism to function properly? John Castellani, President of the Round Table which represents executives of US companies once remarked that "we are a bit socialist now" (Osunkeye, 2009). Castellani is not the only one slightly converted to socialism. Barack Obama, the past America President, had also been accused by McCain (his former Presidential rival candidate), of touting socialist tax policies, but was vindicated by George Bush's \$700 billion rescue fund. Tony Blair was also a centre-left Prime Minister of Britain who once stated that he was not wielded to left-wing ideology, but believed in social justice.

## 5. Conclusion

Karl Marx, the founder of scientific socialism or Marxism, used historical approach to the subject of his analysis and materialist interpretation of history. He believed that a historical approach was needed to be able to explain any form of economic organization. He argued that throughout history, the transition from one system of economic organization to another was due to class conflicts and that the conflicts eventually destroy the old system and created a new one. He specifically mentioned the periodic bouts and booms and depressions, as well as the contradictions he believed would bring about the destruction of the capitalism system.

Since Marx's prediction, three major crises had taken place namely, the one in the 1830s, the Great Depressions of the 1930s and the 2008 global financial meltdown. We can safely conclude that the global financial crisis compares accurately with Marx's prediction of economic crisis in the capitalist system. The end of capitalism is not in sight because the proponents of the system always have a way of fighting back but it appears that all over the world, there is a little more shift to the left.

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## Determinants of Household Food Insecurity in Nigeria

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**Abstract:** Food insecurity is increasingly being recognized by many development economists, policy makers and policy analysts as both a policy and an economic problem. Arguably, an understanding of the determinants of food insecurity is critical for policy analysis and the design of effective food security strategies. Thus, this study examined the determinants of household food insecurity in Nigeria based on data from the 2009/2010 Harmonized Nigeria Living Standard Survey (HNLSS) obtained from the National Bureau of Statistics. Multinomial logit regression was employed to examine the determinants of household food security status. To derive food insecurity status, two objective measures of food insecurity were combined- household Food Expenditure (FE) and Dietary Diversity Score (DDS) to yield four possible scenarios viz., completely food secure; food insecure based on food expenditure only; food insecure based on dietary diversity score only; and completely food insecure households. The determinants of household food insecurity status showed that the odds ratio of households being food insecure relative to completely food secure increased significantly with household size, among rural households, among households in the northern region but decreased with higher income and improvement in educational status. This study therefore recommends that government should put in place policies that contribute to the earning capacity of the households. In addition, huge investment in agricultural sector in all the regions is needed to achieve local self-sufficiency in food production.

**Keywords:** Food Insecurity; Household food expenditure, Dietary diversity score.

**JEL Classification:** Q18

### Introduction

One target of the Sustainable Development Goals is to completely eradicate hunger and poverty by 2030 (IFPRI, 2016). The 2017 Global Hunger Index (GHI) indicates that worldwide levels of hunger and undernutrition have declined over the long term. Despite this improvements, a number of factors, including deep and persistent

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inequalities, undermine efforts to end hunger and undernutrition worldwide (IFPRI, 2017). In early 2017, the United Nations declared more than 20 million people were at risk of famine in four countries: Nigeria, Somalia, South Sudan and Yemen. These crises are largely “manmade,” the result of violent conflict and internal strife that are preventing people from accessing food and clean water. Therefore, completely eradicating hunger is a major challenge for policymakers. Food is regarded as one of the major key for sustaining life through the provision of life’s essential nutrient for maintenance of good health, labour productivity, and human well-being. . In the 1996 World Food Summit in Rome Italy, food security was defined as situation when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meet their dietary needs and food preferences for an active and healthy life (FAO, 1996). Embedded in this definition are three components; availability, accessibility and food utilization. Availability connotes the physical presence of food in large amounts, accessibility suggests sufficient purchasing power or ability to acquire quality food at all times while utilization demands sufficient quantity and quality of food intake. Food insecurity on the other hand, according to Mushir Ali *et al.* (2012) exists when people are undernourished as a result of the physical unavailability of food, their lack of physical, social or economic access to adequate food and inadequate food utilization.

Global food insecurity is an issue that can no longer be ignored. Essentially, it has become a major problem in Nigeria (Ibrahim *et al.*, 2009 ). More so, meeting the food needs of households in Nigeria is also a serious challenge, (Akarue & Bakporhe, 2013). Empirical evidence has shown that household food insecurity is not only prevalent among rural households but in urban ones as well. Urban areas are faced with the problem of increasing population, increasing inaccessibility to social services, unemployment and underemployment and consequently inadequate supply of food items. Many urban households and individuals in Nigeria merely eat for survival despite their involvement in urban agriculture, just like many rural households whose occupation is predominantly believed to be agriculture. Although there are research findings on the comparative analysis of household food security status between rural and urban areas in literature, but there exist some gaps. Most studies like Babatunde *et al* (2008), Oluwatayo (2009), Adepoju and Adejare (2013), Omonona *et al* (2007) and Iorlamen *et al* (2013) on household food insecurity used a data set that is neither nationally representative nor large enough to generalize the findings as to what categories of households; urban or rural household; female or male headed household; a one-person household or multi- person household; are worst hit by food insecurity. Further, various studies on the extent of household food insecurity in Nigeria have employed different measures. While studies like Oluwatayo (2009), Adepoju and Adejare (2013) among others used an objective measure, Babatunde *et al* (2008) employed a subjective measure (coping strategy

index). An obvious shortcoming of the subjective measure of food insecurity as stated by the author is that:

*“It is impractical when it comes to making government policies to reduce food insecurity as there is an obvious incentive for misreporting by the individual able to determine whether he is food insecure and needs government help. Thus the subjective measure limits the usefulness of food insecurity measures in comparing the prevalence of the problem across categories of households or overtime”*

The objective food insecurity measures; dietary diversity and food expenditure measure; employed in this study captures two components of food security; availability and accessibility. According to Ogundari (2013) per capita food expenditure represents food accessibility while dietary diversity score (DDS) represents food availability. Thus, the results generated from the current study better reflects the extent of food insecurity experienced by households in Nigeria and is consistent with food security theory and socioeconomic characteristics of households. Thus, the study accounts for the shortcomings of using an indicator that captures one component of food insecurity (a point of departure from previous studies).

In the light of the foregoing discussions, this study contributes to the literature on household food insecurity status and household socio-economic characteristics using the 2009/2010 Harmonized Nigeria Living Standard Survey (HNLSS) – a nationally representative data.

The rest of the paper is organized as follows: section 2 reviews extant literature on food insecurity. Section 3 focuses on the theoretical framework, methodologies employed as well as data source and description. Section 4 presents the results while Section 5 concludes with policy recommendations.

## **Literature Review**

There have been various theoretical approaches that have drawn attention to different components of food security and in turn, have contributed to the modification and extension of the definition to food insecurity. Two theoretical approaches to food security are presented: Food availability and Entitlement approach.

The first approach to food security is the “food availability” approach. In “*An Essay on the Principle of Population*,” published in 1798 by Thomas Malthus, the English economist made public his theory on population dynamics and its relationship with the availability of resources (food). Malthus maintained that the development of



mankind was severely limited by the pressure that population growth exerted on the availability of food. The food availability approach is focused on the (dis)equilibrium between population and food: in order to maintain this equilibrium, the rate of growth of food should not be lower than the rate of growth of population. Until the early 1970s, this was the reference approach for the international community, both at political and academic level. The policy implications of this approach are twofold: On the “demand side”, the need to reduce the rate of growth of population—namely the fertility rate—through appropriate policies while on the “supply side”, the need to boost (per capita) food production—namely agricultural production. For such purpose, the foremost policy that is generally prescribed and implemented is to increase agricultural productivity. Malthus believed that the world's population tends to increase at a faster rate than its food supply. This indicates that in any country where population grows at a geometric rate without any preventive check, while the production capacity only grows arithmetically, scarce resources will have to be shared among an increasing number of individuals and hence, food insecurity.

The second approach “Amartya Sen’s entitlement approach” challenged the popular view that food insecurity is caused by shortage of food. It stressed that people suffer from food insecurity as a result of their inability to have access to food irrespective of food availability (Devereux, 2006). That people suffer from hunger does imply that there is not enough food to go round. On the theoretical level, Sen’s 1981 essay on entitlement and deprivation posited that food insecurity is more of a demand than supply concern. The entitlement approach concentrates on each person’s entitlements to commodity bundles including food, and views starvation as resulting from a failure to be entitled to any bundle with enough food. The most valuable contribution of the entitlement approach to food insecurity theorizing is that it shifts the analytical focus away from a fixation on food supplies—the Malthusian logic of “too many people, too little food”—and on to the inability of groups of people to acquire food. Thus, Food insecurity affects people who cannot access adequate food (e.g. because of poverty) irrespective of food availability— a very crucial insight is that food insecurity can occur even if food supplies are adequate and markets are functioning well.

Various methods have been used in calculating the food insecurity line before identifying the determinants of household food insecurity status (Ravallion and Bidani, 1994; Aigbokhan, 2000; Okurat et al, 2002 as cited by Ayantoye et al, 2011). The Cost of Basic Needs (CBN) approach, the Food Energy Intake (FEI) method used by Greer and Thorbecke (1986), the expenditure method, the per capita daily Calorie intake method, dietary diversity measures among others. Oluwatayo (2009) also using household level data employed dietary diversity measure which reflects income, food prices and production to categorize households into food secure and non-food secure groups. In the survey, a number of food consumed by the

respondents were identified. A food secure benchmark of 0.5 was determined based on how varied the diets of respondents are. In all, 15 common food items (with three food items belonging to each of the five classes of food) and water (as the 16th food item) were used. Households with a benchmark greater or up to 0.5 were classified as food secure (1) while those with a benchmark below 0.5 were classified or regarded as food insecure (0). The advantage of dietary diversity measure lies in the simplicity of data collection. Training field staff to obtain information on dietary diversity is straight forward and does not require much technical competence. However, Hodinnoth and Yohannes(2002) observed that dietary diversity is not an adequate indicator of food security as it fails to account for affordability. Omonona et al (2007) and Akarue and Bakporhe (2013) classified households into food secure and insecure based on the expenditure method. A food secure household was then described as one whose per capita monthly food expenditure is above or equal to two-third of the mean per capita food expenditure while a food insecure household was described as one whose per capita food expenditure falls below two-third of the mean monthly per capita food expenditure. One of the main advantages of using the expenditure method is that the food expenditure data are not especially insensitive, that is, people generally have little incentives to misreport how much food they acquire over a short period of time. A major disadvantage of using the method is that it is prone to systematic errors such as telescoping where a respondent may include events that occurred before the recall period, thus inflating estimates of household food expenditures (Smith et al, 2006).

Recent studies have employed ordinary least square (OLS), binary regression technique and multinomial logit regression to examine the determinants of household food insecurity. Studies like Ogundari (2013), Akarue and Bakporhe (2013), Bello (2009), Bhattacharya et al (2004) among others used the regression analysis. Ogundari (2013) employed multinomial logit and fractional regression models to investigate determinants of food-poverty (*FP*) states and the demand for dietary diversity, respectively using 2003/2004 Nigerian Living Standard Survey (NLSS) data. The *FP* states was derived by combining two food security indicators defined as food expenditure (FOOD exp) and dietary diversity score (DDS), which yielded four possible scenarios viz. completely food secure, food insecure based on FOOD exp only, food insecure based on DDS only, and completely food insecure households in the study. Akarue and Bakporhe (2013), using the binary logistic regression method, identified only income of household head as important determinant of food security. Bello (2009) employed the Ordinary least square method of regression analysis to investigate food insecurity and malnutrition in Nigeria and its implication on wellbeing using secondary data. Bhattacharya et al (2004) adopted the ordinary least square method and logistic regression to examine the relationship between nutritional status, poverty, and food insecurity for

household members of various ages using data from the National Health and Nutrition Examination Survey in United States of America.

A close study of empirical literature shows compelling evidence that food insecurity exists and it is systematically dependent on availability and accessibility amongst other factors. Akarue and Bakporhe (2013) examined the determinants of household food insecurity in Ughelli North Local Government Area of Delta State, Nigeria. They obtained food security index computed from per capita expenditure as well as data on sex of household head, age of household head, level of education of household head, marital status, household size, income of household head. Evidences revealed that households with greater size are more likely to be food insecure as compared with households with smaller size. Another principal determinant of household food security in the study region is the income of the household head.

Studies like Babatunde (2008) and Ayantoye (2011), among others also used primary data based on sample size. Babatunde (2008) carried out a gender based analysis of farming households in Kwara State, Nigeria to examine the determinants of household vulnerability to food insecurity. Primary data collected through a cross section survey of representative farm households in Kwara State. Variables used in the study includes age of household head, household size, off farm income, farm size, education of household head, value of crop output, food expenses, labour hour use, access to extension services, susceptibility to sickness. The study however found that male headed household possessed more resources than female headed households. Female headed households were more vulnerable to food insecurity than male headed households. Farm size and crop output were also significant in determining vulnerability to food insecurity in male headed households. A limitation in this study was the sample size used which cannot be used to test the robustness of findings concerning the impact of gender on vulnerability to food insecurity. More so, Ayantoye *et al* (2011) examined food insecurity dynamics and its correlates among rural households in South- Western Nigeria. Data were collected over two-time period from 292 rural households from September to December 2006 during food crops harvesting season (HS) and from March to May 2007 during food crops planting season. Variables such as households size, educational status, age, marital status, gender, farming experience, dependency ratio, farm size, occupational Status, access to credit, asset ownership were used. They described the movements into and out of food insecurity during the two seasons at which data were collected. Results revealed that more rural households moved into food insecurity during planting season. A general limitation of these studies that used primary data was that it was carried out within some localities in Nigeria. Hence a national survey of the extent and degree of food insecurity is necessary in Nigeria.

Adepoju and Adejare (2013) used the General Household Survey-Panel to analyze the food insecurity status of rural households during the post-planting season in Nigeria. Households were classified as either food insecure or food secure using the expenditure approach to food insecurity. Socio-economic characteristics of respondents including gender, age, marital status, educational status of household head and occupational status of household head were employed in the analysis. Data on food expenditure and non-food expenditure were also utilized. Results showed that almost half (49.4 percent) of rural households in the country were food insecure during the post-planting period. Ogundari (2013) also investigated the determinants of food poverty states and the demand for dietary diversity using 2003/2004 Nigerian Living Standard Survey (NLSS) data. Food insecurity was proxied using food expenditure and dietary diversity score. The study however found out that the odds ratio of households being in state of food insecure relative to completely food secure increased significantly with household size, among households headed by farmers, households that own produced and purchase only food consumed, and households in the rural areas but decreased significantly as income level increased.

### Theoretical Framework`

The theoretical framework for examining the relationship between household food insecurity status and household socio-economic characteristics is built within the framework of general household utility model. The household is modelled either as a single unit in the unitary model or as a collection of entities in the collective models

Following Becker (1965), Singh *et al.* (1986) and Behrman and Deolalikar (1988), households obtain utility from the consumption of Z-goods specified as:

$$(1)$$

$Z_i$  is a vector of  $i$ -th household consumption demand which includes consumable goods only. Thus can further be specified as

$$= (\dots) \quad (2)$$

Therefore,

$$U = (\dots) \quad (3)$$

Where  $U$  is a utility function that is twice differentiable, increasing in its arguments, and strictly quasi-concave. Taking into consideration the production function of the consumable goods, the household utility function can therefore be specified as:

$$U = u(\cdot) \quad (4)$$

Where represents factor inputs used in the production process and  $(\cdot)$  is the production function for the consumable goods.

$$i = 1, 2, 3, \dots, n$$

$$j = 1, 2, 3, \dots, k$$

$$U = u \{ (, \dots), (, \dots), \dots, (, \dots) \} \quad (5)$$

For the purpose of this study it is assumed that the household consumes the above bundle of goods subject to his wage (which is determined by Labour supply, Education, Individual Characteristics (IC), Household Characteristics (HC), as well as unobserved factors and random fluctuations in wages ( $ew$ )) and non-wage income. It is also assumed that the wage earned is spent on consumable goods only. Thus, adding a wage equation of the form yields;

$$W = w(L, E, IC, HC, ew) \quad (6)$$

The utility function is then maximized subject to the production functions, the wage equation and the budget constraint, which is given as

$$wL + V \quad )$$

Where  $Pz$  is the price of consumable goods,  $V$  is the non-wage income, while  $wL$  is labour income. The maximization of the problem yields a set of reduced form equations including the equation below, which is of interest to this study.

$$= (PZ, IC, HC, ) \quad (8)$$

The equation is a reduced form demand function for food security  $j$

**Where:**

= Food Security (Household food expenditure and dietary diversity score indicators)

PZ = Price of consumable goods

IC = Individual Characteristics

HC = Household Characteristics

= Unobserved Characteristics

**Model Specification**

From our theoretical framework, a model is constructed to establish a relationship between food security indicators and household socio-economic characteristics. This specification follows Ogundari (2013) as shown below:

Where: + (9)

$$i = 1 \dots n$$

Where  $Y_i$ , the dependent variable is the vector of household food expenditure and dietary diversity score defined as  $Y_i = (\text{HH FOOD EXP}, \text{DDS})$ . Households in the sample are first identified as either food secure or not based on certain food security threshold from the food expenditure and dietary diversity score before they are combined. The outcome of the dependent variable has four possibilities based on the indicators used:

Food insecure based on food expenditure but food secure based on dietary diversity

Food insecure based on dietary diversity but food secure based on food expenditure

Completely food insecure from both indicators

Completely food secure from both indicators.

Households in completely food insecure state from both indicators have an outcome of 3, household in food insecure state based on food expenditure and food secure based on DDS have an outcome of 2, household in food insecure state based on DDS and food secure based on food expenditure have 1, and households in completely food insecure state as revealed from both indicators have an outcome of 0

$\beta_0$  = Constant term

= Constant term

= Household size

= Income of household head

= Age of household head

= Marital status of household

= Sex of household head

= Area of residence (rural or urban)

= Occupation of household head

= Error term

For the purpose of empirical estimation of the nexus between food insecurity and household socio-economic status, food insecurity is measured in terms of household food expenditure and dietary diversity score. Since the outcome of the dependent variable has four categories, the suitable econometric approach for estimating equation 9 is multinomial logistic regression. A multinomial logistic regression model is used for data in which the dependent variable is unordered or polytomous, and independent variables are continuous or categorical predictors. This type of model is therefore measured on a nominal scale and was introduced by McFadden, (1974). Unlike a binary logistic model, in which a dependent variable has only a

binary choice (e.g., presence/ absence of a characteristic), the dependent variable in a multinomial logistic regression model can have more than two choices that are coded categorically, and one of the categories may be taken as the reference category. The basic compact form of the specification of specification of this regression model is sequentially derived as given below:

In a situation where individual household make the choice  $j$  in terms of household expenditure on food, it is assumed that  $U_j$  is the maximum utility among the alternatives of the basket of food varieties purchased. This statistical model is anchored on the probability that the household derived utility set as:

$$P(U_{ij} > U_{ih}) \text{ for } h \neq j \quad (10)$$

It then follows that

$$P_{ij} = \Pr(Y_i = j / J, X) = \frac{\exp(x_{ij}\beta)}{\sum_{h \in J} \exp(x_{ih}\beta)} \quad (11)$$

Equation (11) is referred to as conditional logit model in which the regressors vary over the alternatives for each individual household. The numerator on the right hand side of the equation is greater than zero and the probabilities all lie between 0 and 1 and sum to 1. This multinomial logit model is a discrete choice model. That is, the one that specifies the probability that a household may fall under particular alternatives like food secured or insecure, and poor diet or balance diet).

### Data Source and Scope

The data used for this study is from Harmonized Nigeria Living Standard Survey (HNLSS) 2009/2010 conducted by the National Bureau of Statistics (NBS). The HNLSS is a combination of the Nigeria Living Standard Survey (NLSS) and the Core Welfare Indicator Questionnaire survey (CWIQ). The data were collected on a quarterly basis, over a one year period from November 2009 to October 2010.

The survey was a nation-wide activity, covering all 36 States of the Federation and the Federal Capital Territory (FCT). The HNLSS was divided into Part A and B. In Part A the welfare approach was adopted, while in Part B it was the consumption approach. It was designed to investigate both urban and rural areas (as classified by the National Population Commission) of all the 774 Local Government Areas (LGAs) of the country. After data cleaning, the data came to 30,651 households. The data is rich in providing general information required for examining the relationship between household food insecurity and socio-economic characteristics. Apart from

the fact that it provides information on the structure and composition of households, it also provides information on the extent of household food insecurity.

The NBS enumerators conducted interviews with household members. The data was collected on a quarterly basis, over a one year period from November 2009 to October 2010. There were 4 interviewer visits per household with 7 day intervals for every 30 days. A diary of daily consumption and expenditure was used to support the interviews and recorded in each household's Diary Record Booklet. Diaries were left with households, with at least one literate individual to complete. For non-literate households, a literate living in the same vicinity assisted the non-literate household to complete their diaries.

The information contained in the HNLSS includes detailed value of own-food produced and expenditure on the type of food purchased by the households. For each household, expenditure profile on the following six food groups were included: (1) staples {i.e., yam, cocoyam, cassava, rice, maize, and millet}, (2) meat and fish, (3) dairy products, (4) fruits and vegetables, (5) fats & oils, (6) sweeteners. And provided also in the dataset are detailed information on the non-food expenditure which includes; expenditure on education, healthcare, housing (i.e., house rent, cost of maintaining the house and the furniture), Clothing (clothes, shoes), utilities, house appliance, transportation (transport fares, petrol purchased, maintenance of cars, bicycles etc.), and communication. Included also are household's socio-economic variables such as: gender, years of education, and major occupation of household head, household with different age composition, and household size.

In this study, analysis is carried out at household level. We focus on the period 2009 – 2010. The choice of the period is guided by data availability considerations.

### **Estimation Technique**

A large number of studies such as Omonona and Adetokubo (2007), Kuku and Liverpool (2010), Ogundari (2013) among others have employed household food expenditure method to estimate the food security line. The food security line was estimated as two-thirds of the mean-per capita monthly expenditure of all households. Households were then classified into their food security status as food insecure and food secure households based on the food security line. A food insecure household was then described as that whose per-capita monthly food expenditure falls below two-thirds of the mean monthly per-capita food expenditure while a food secure household is that whose per-capita monthly food expenditure is above or is equal to two-thirds of the mean per-capita food expenditure. Guided by this we therefore rely on previous literature to define the threshold as two-third of the mean monthly expenditure on food as food security line to classify households in the sample as food secure/insecure. Dietary diversity score is another method of estimating food security line that has been used by researchers. Food items consumed by households are commonly grouped into various food groups to reflect dietary



diversification of the households. Dietary diversity (DD) represents the frequency in which households consume food from different food groups. According to (Smith and Subandoro, (2007) as cited by Ogundari 2013) a household is considered food insecure if their DDS is less than the average DDS of the households in the upper quintile. We also rely on the work of Smith and Subandoro, (2007) in calculating the food security threshold. In calculating the food security status of households, instead of reported income, we use the value of total household consumption (also referred to by many such as Ogundari,(2013), Smith and Subandoro,(2007) among others, as household consumption expenditure). Expenditures are a better representation than income of total resources available to the household because households typically try to smooth consumption over time in the face of fluctuations in income.

### Presentation And Analysis Of Empirical Results

**Table 1. Determinants of Food Insecurity**

Explanatory variables	Completely Food Insecure (Food Expenditure and DDS)		Transitory Food insecure 1 (FE)		Transitory Food insecure 2 (DDS)	
	Odds ratio	Std. Error	Odds ratio	Std. Error	Odds ratio	Std. Error
Household size	61.289***	0.051	18.842** *	0.048	2.273* **	0.051
Log of household income	0.0000118 6**	0.361	0.2216** *	0.331	0.642	0.353
Nursery/ primary	1.311***	0.088	1.005	0.075	0.946	0.137
Secondary school	1.13	0.099	0.77***	0.084	0.832	0.157
Post-secondary school	1.057	0.113	0.564***	0.096	0.906	0.152
No education	-	-	-	-	-	-
less_25	0.25***	0.173	0.433***	0.136	0.776	0.329
age_25_29	0.803*	0.119	0.918	0.098	0.988	0.207
age_30_34	1.73***	0.112	1.536***	0.096	0.868	0.182
age_35_39	1.473***	0.111	1.286***	0.097	0.722*	0.170
age_40_44	1.278**	0.115	1.225**	0.102	0.705* *	0.172
age_45_49	0.827	0.120	0.891	0.107	0.764	0.166
age 50 and above	-	-	-	-	-	-
Occupation (farmer)	0.975	0.072	1.181***	0.061	0.785* *	0.121
Non farmer	-	-	-	-	-	-
Gender (female)	0.681***	0.091	0.838**	0.074	1.736* **	0.134
Male	-	-	-	-	-	-
LocatiSon (rural)	1.499***	0.078	0.985	0.066	1.15	0.114

Urban	-	-	-	-	-	-
North Central	1.021	0.107	1.192*	0.090	1.488*	0.178
North East	1.597***	0.129	1.607***	0.111	1.635*	0.214
North West	2.261***	0.115	1.837***	0.100	2.899*	0.179
South West	1.304**	0.113	1.31***	0.092	1.202	0.169
South South	1.397***	0.109	0.996	0.089	1.221	0.163
South East	-	-	-	-	-	-
<b>Pseudo R-Square</b>	0.798					
Likelihood Ratio Tests (P-Value)	38696.675 (0.000)					

Note: \*, \*\*, \*\*\* indicate significance at the 10%, 5% and 1% levels of significance respectively

Source: Author's computation from HNLSS 2009/2010,

The results show that some household socio-economic characteristics have significant relationship with household food insecurity as measured by completely food insecure (dietary diversity score and household food expenditure), transitory food insecure (FE) and transitory food insecure (DDS). The estimation shows that the relationship between household size and food insecurity is statistically significant at 1 per cent level and also positive. This indicates that as household size increases, household food insecurity also increases. The effect of this on economic development in Nigeria is negative as it slows economic development.

Result shows that household income appears to be significant in explaining changes in household food security status at 1 per cent level of significance based on completely food insecure (DDS AND FE) and transitory food insecure (FE). Also worthy of note is that the odd ratio appears with a negative sign which is in tandem with *a priori* expectation. This result however suggests that as household income increases, the odd ratio of being food insecure reduces. Thus, in the Nigerian context, the variable appears to be significant in promoting economic development which implies that increase in household income reduces food insecurity which in turn reduces malnutrition, death among others.

Further, the results show that the odd ratio of household heads being food insecure reduces as household head upgrades his educational status based on transitory food insecure (FE). A significant negative relationship exists between household heads who are less than 25 and household food security status based on completely food insecure (FE and DDS) and transitory food insecure (FE). More so, household head who are in the age bracket (25 years- 29years) are less likely to be completely food insecure based on food expenditure and dietary diversity score at a 10 per cent level

of significance. However, household heads that are in the age bracket (30-39) years have a significant positive relationship with household food security status, while household heads that are in the age bracket (40-44) years are more likely to be food insecure at a 5 per cent level of significance based on completely food insecure (FE and DDS), transitory food insecure (FE) and transitory food insecure (DDS).

The analysis also revealed that household heads who are farmers are more likely to be food insecure based on transitory food insecure (FE) at a 1 per cent level of significance and less likely to be food insecure based on transitory food insecure (DDS) at a 5 per cent level of significance. Also, a significant negative relationship exists between households headed by females and household food security status based on completely food insecure (FE and DDS) and transitory food insecure (FE). However, based on transitory food insecure, households headed by females are more likely to be food insecure compared to households headed by males. The result further shows that households in rural areas are more likely to be completely food insecure based on FE and DDS. We deduce from this result that demographic location is also important in determining food security status as households in rural areas are more highly impoverished, we can also deduce from our findings that food insecurity in Nigeria is largely a rural phenomenon.

The results also revealed that households in the north central are more likely to be transitory food insecure (FE) and transitory food insecure (DDS) compared to households in the south east. More so, households in the north east and north west are more likely to be completely and transitory food insecure based on food expenditure and dietary diversity score compared to households in the south east. However, households in the south west are more likely to be completely food insecure (FE and DDS) and transitory food insecure (FE) while households in the south south are more likely to be completely food insecure (FE and DDS) only at a 1 per cent level of significance compared to households in the south east.

### **Conclusion and Policy Recommendation**

This study examined the determinants of household food insecurity. The result showed that the odds ratio of household being food insecure relative to completely food secure increased significantly with household size among rural households, among households in the northern region but decreased with higher income, improvement in educational status.

In the light of our empirical findings, it is important for government to create awareness on reproductive health to empower household heads to make quality decisions regarding their household size, ensuring that a small size of household is maintained by creating health centres with free advice on fertility matters for parents or spouses. Further, since it is clear that household income drives down food

insecurity, it is important government puts in place policies that contribute to the earning capacity of the households. Also job opportunities should be provided so that people with no job can have one and also enhance their food security status.

In addition, we found that educational status of household head is a key factor to improve household food security status based on food accessibility; government should put in place policies to improve the education of household heads so as to improve their chances of accessing the available food produced. Also, education of women should be encouraged especially in the rural areas.

More importantly, there is need for investments in vital agriculture infrastructures, credit linkages and encouraging the use of latest techniques, motivation in each region, location (rural or urban) to achieve local self-sufficiency in food production. Further, food crop production with high potential in the area must be encouraged. Creation of necessary infrastructures will also stimulate private investment for food production on a sustainable basis to create massive employment and reduce the incidence of food insecurity and increase the purchasing power of the people in the country.

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## Directions and Trends in Organizing the Accounting of Public Institutions

Silvia Bunea<sup>1</sup>

**Abstract:** In recent years, the accounting of public sector entities has registered a number of changes at the internal and European level, following the process of globalization that is manifested through accounting harmonization. The most important benefits of accounting harmonization in the public sector consist in optimizing the comparability of financial information, as well as in increasing the public responsibility assumed by the administrations. At international level, the harmonization of accounting for the public sector is based on International Public Sector Accounting Standards (IPSAS), and at European level, it is intended to be achieved through the creation and development of European Public Sector Accounting Standards (EPSAS). In Romania, the accounting has been used with the appearance of the first human settlements and with the increase of the exchanges of goods. The bases of the organization of public accounting were laid down by the Organic Regulations of 1831 and 1832 and it has undergone a continuous development, depending on the changes of the political regime in our country. Thus, in order to adjust the Romanian accounting system to the new economic, political, legal and social situations, it has undergone an extensive and thorough reform process.

**Keywords:** accounting harmonization; public responsibility assumed; commitment accounting

**JEL Classification:** H83

### 1. Introduction

With a view to the gradual and progressive implementation of International Accounting Standards for the Public Sector, which will ensure the preparation of quality financial statements and effective control over European public money, as well as a result of the international economic crisis that has forced the EU Member States European to take measures to consolidate the budgetary discipline and to control the budget deficit, inflation, public debt, in recent years, internally and at European level the accounting of public sector entities has registered a number of changes. (Criveanu, 2018, p. 5)

Currently, the process of globalization has a stronger impact on the way in which the

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economic activities are carried out, which aims at creating a uniformity of the practices at global level. In the field of accounting, the process of globalization manifests itself through accounting harmonization, considered a reconciliation of different points of view, being more practical and less rigid than uniformity, which may lead to the imposition of some countries' views on others. In the case of the public sector, since the early 1990s, IFAC has initiated a major harmonization program, aimed at developing a unique set of accounting standards for the public sector and promoting their introduction at all levels of administration, respectively central, regional and local.

Accounting harmonization brings with it many benefits, of which we remember the one we consider the most important, namely improving the comparability of financial information, but, on the other hand, this process involves a major disadvantage, namely the possibility of losing sovereignty by certain states, which can lead to a reluctance to apply international referrals. Accounting harmonization in the public sector has gained importance in the light of the fact that it is considered a way to significantly improve the public responsibility assumed by administrations, to facilitate the analysis and comparison of financial reports prepared in the public sector by the stakeholders, respectively to evaluate the performance at different levels of the administration. At the same time, as an instrument for improving transparency and comparability, accounting harmonization also contributes to the improvement of the decision-making process.

The perception of accounting should be radically changed, as accounting is an important part of financial management, meaning much more than just financial reporting. Commitment accounting should advocate for accrual-based budgeting so that current and budgeted inputs are easily comparable. Another important issue with crucial consequences for the success of commitment accounting in the public sector is the establishment of accounting standards.

## **2. Development of Public Accounting at International Level**

From a historical perspective, public sector accounting was initially based on cash (cash basis accounting), which was invented 250 years ago in Austria and used for the first time in countries such as Austria, Belgium, Finland and Germany. The change and modernization of public sector accounting includes progress in improving cost and budgeting issues, but the main change that has attracted public attention has been the transition to commitment accounting, a process that has had significant effects on financial reporting and accountability.

Commitment accounting was developed for the purpose of financial reporting by private sector entities and was considered to be superior in terms of efficiency compared to cash accounting, being more representative for measuring sustainability

and providing much more information. relevant in the decision-making process. At the same time, commitment accounting is considered more complex, from the point of view of sound technical expertise and the high professional reasoning it requires. Recognizing the implications of harmonization in order to improve transparency, a number of international and European bodies and institutions such as the OECD, the European Commission, the International Monetary Fund or Big 4 group companies support research in the field of accounting harmonization in the public sector.

An essential basic concept for the good performance of the activity in the public sector and presented in the specialized literature is the public responsibility assumed. Studying financial reporting in the public sector brings this concept into question, with a close connection between financial reporting and public responsibility assumed, defined as "the responsibility to provide information that allows users of accounting information to make value judgments on position, financial performance, financing and investments, as well as the entity's compliance". The public responsibility assumed is associated with the responsibility related to a certain behavior or action, being classified into four categories: bureaucratic, legal, professional and political, categories to which it is added hierarchical responsibility.

The public responsibility assumed is closely connected with aspects such as respecting the information transparency and the legal framework in place, ensuring a prudent and rational use of existing resources or providing organizational feedback in order to facilitate the internal processes, being seen as a relationship between politicians and citizens, but also between politicians and managers of public institutions. Also, some authors highlight the social nature of the relationship that this responsibility creates between the producers and users of accounting information in the public sector.

As regards the users of the accounting information in the public sector, the specialized literature includes a series of their classifications. Thus, the most comprehensive classification comprises seven categories of users, including citizens, their representatives, decision-makers (Government and ministries), managers of public institutions, employees and professionals from public institutions, regulatory bodies and creditors of public institutions.

The concept of harmonization in the field of accounting designates the process of alignment, compatibility, of the accounting norms in force. The purpose of the process of harmonizing international accounting standards is to reduce or overcome differences worldwide, in order to reach a better international comparability of financial statements. Achieving a harmonization implies a general consensus at the level of the accounting systems, but this is quite improbable, taking into account the multitude of functional, cultural or ideological factors that influence the differences of vision. The measurement of international accounting harmonization allows the decision makers in the field of accounting to evaluate the effect of their



recommendations and to identify the aspects on which they must focus their efforts in the future.

Accounting harmonization at international level is based on international accounting standards: International Public Sector Accounting Standards (IPSAS) for the public sector and International Accounting Standards (IAS), respectively International Financial Reporting Standards (IFRS) for the private sector. In the case of the public sector, the idea of harmonizing the accounting is much more recent than in the case of the private sector, which is why it was not given the same importance as that of the private sector, as there is not a very high interest for the accounting harmonization in the public sector, having the great differences between states and the particularities of the public sector.

International Public Sector Accounting Standards (IPSAS) represent a set of 40 standards based on commitment accounting and a standard based on cash accounting. These are designed and developed by the International Public Sector Accounting Standards Board (IPSASB) and they represent a key incentive for the process of accounting harmonization in the public sector. IPSAS are designed to provide high quality financial information, comparable internationally, in order to improve transparency. Adopting IPSAS encounters many barriers or criticisms regarding the approach to standards for the private sector, the interest expressed by states to maintain their control and sovereignty, the costs and training that this adoption would entail, but also concerns about IPSASB governance. Approaching the standards for the private sector generates the incompleteness of IPSAS regarding certain specific needs of the public sector, such as taxation or social benefits. Another criticism of these standards is that they do not adequately address the budget features of public administration, mentioning only the budget information that should be included in the financial statements. This is in contrast to the importance given to the budget, especially in certain countries, and may be a risk to the adoption of IPSAS, especially in countries where the budget is a basis of the accounting system, as is the case in Finland. In addition, the inclusion of fair value as a measurement criterion in the public sector is strongly criticized. (Crisan, 2017)

Regarding the accounting harmonization in the public sector at European level, according to Eurostat, this is intended to be achieved by the creation and development of the European Public Sector Accounting Standards (EPSAS), taking into account the fact that IPSAS cannot be easily implemented in the current form in the Member States of the European Union. The main need for the creation and development of EPSAS is given by the existence of significant differences between IPSAS and ESA, differences whose reconciliation is pursued through the creation of these standards applicable at European Union level.

At this time, the extent to which EPSAS would be different from IPSAS is not determined, the latter standards being used as a reference for the development of the

former. Given that 2012 represents the moment of public consultation on IPSAS, the expected year for the implementation of EPSAS at European Union level is 2020, being considered a realistic term for achieving this objective. Although it is quite difficult for these standards to be implemented in all 28 Member States, reducing the number of states where the quality of the information obtained is low would facilitate the performance of Eurostat tasks. A potential result of the implementation of EPSAS will have a symbolic role to improve the comparability of the financial performance of the Member States, because the differences of social or legislative nature and the way the public accounting functions at central, local or regional level limit this comparability, so it can be carried out only on a rhetorical level.

EPSAS standards would take the form of binding legal acts, drawn up by an EPSAS committee, composed of representatives of the Member States, chaired by the European Commission and supported by working groups, with other stakeholders being involved through consultations or as observers. According to a study by Pricewaterhouse Coopers (2014), regardless of the degree to which IPSAS are considered a reference for the development of EPSAS, there are several arguments against the creation and development of these standards valid at EU level, which is still an aspect that it raises numerous question marks regarding the real need to develop and implement standards that are valid at the European Union level. However, the scenario in which EPSAS is developed with IPSAS as a point of reference presents a single major argument against this scenario, materialized at the risk of reduced involvement from states that tend to reject IPSAS.

In addition to the financial and statistical reporting systems, public institutions also prepare budget reports. Unlike accounting and statistical systems, in most countries, budgets are drawn up on a cash basis. At the level of the states of Europe, there is a rather high heterogeneity regarding the bases on which the budget is based at different levels of the administration.

### **3. Modernization of Public Accounting in Romania**

In the territory of our country, accounting has been practiced since ancient times, with the organization of the first human settlements and with the development of exchanges of goods, in response to the information needs related to the conduct of economic activities. The first accounting works appeared in the Romanian space only in the first part of the 19th century, with a delay of almost three centuries compared to the western European countries, representing, for the most part, translations of some accounting books, written by French authors, Germans or Italians. The Organic Regulations of 1831 and 1832 had a special role in the evolution of the Romanian accounting because with their contents, they laid the

foundations for the organization of the public accounting and the accounting education in Moldova and in the Romanian Country.

In 1865, the law of public accounting was elaborated, which was applied for thirty years, with a series of changes. Public accounting has gradually expanded to other areas of public administration by the law of 1895. None of these laws makes any reference to the scientific system of the double party. Although double-party accounting becomes mandatory in our country only through the law of 1929, the catastrophes with accounting records, belonging to the merchants from Brasov and Sibiu, show that they knew the Venetian accounting practices since the 16th century. Many Brasov trading houses practiced economic calculations and kept double accounting according to Paciolo's rules. Unfortunately, until the mid-1970s, the accounting in our country did not allow a specific Romanian thinking, which was strongly influenced by the Soviet experience.

In order to keep the normalized accounting, accounting rules were established that reflect the economic and financial operations, using the first plans of accounts and balance sheets structured by activity branches of the economy. Over time, the account plans underwent several processes of change, being differentiated by branches of activity until 1971, when the plan of accounts based on a single general framework was elaborated.

The public accounting system in Romania has evolved in a natural way, taking into account the changes that this country has taken over the decades. Being a former communist state, the system of public accounting has undergone a series of changes, especially after the fall of the communist regime. These significant changes were generated by the need to adapt to the characteristics of the market economy, the communist regime being characterized by the centralized economy. There are certain legislative regulations considered defining for the evolution of the public accounting system in Romania, such as the Accounting Law no. 82/1991, Order of the Minister of Public Finance no. 1.746 / 2002, G.D. no. 81/2003, Order of the Minister of Public Finance no. 1.487 / 2003, but also O.M.F.P. no. 1917/2005.

**There is consolidation of the formulation of the budget based on programs,** process supported by the Law of public finances no. 500/2002, which guides the entire financial management on the performance criterion. Program-based budgeting generates and relies on multiannual priorities, which increases the predictability of budgetary policies and the business environment and which will contribute to mitigating efficiency losses.

Within the actions aimed at restructuring the budgetary process, but also at improving the structure and transparency of budgetary expenditures, a new classification of indicators on public finances has been elaborated, which mainly concerns the following:

- Income grouping according to the sources and their nature, according to the international methodologies and the manual on public finance statistics published by the International Monetary Fund. This allowed in addition the reclassification of most of the revenues that are currently improperly grouped as “Other taxes”, “Various revenues” or “Payments from public institutions”;
- Within the economic classification of expenditures, greater detail of their structure was considered, which would provide more accurate information on the allocation and use of public funds, but also some new approaches.

According to the studies carried out in the specialized literature regarding Romania, the public sector accountants consider the **commitment accounting** only a rule imposed by normalizers being also revealed an increased need for their training. The reform in the Romanian public sector began in 2002 when the Government's decision established the use of **accrual accounting** to supplement cash accounting.

Thus, Romania's experience regarding the adoption of IPSAS began in 2002, with the transition from cash accounting to commitment accounting, a moment characterized by the publication in the Official Monitor of the Order of the Ministry of Public Finance no. 1.746 / 2002, order that includes the approval of the methodological norms regarding the management and organization of the accounting of the patrimony of the public institutions, of the plan of accounts, respectively of the accounting monograph for the main operations. In carrying out these major changes to the Romanian public accounting system, in addition to the official form of IPSAS standards, elements such as the European System of Accounts (SEC 95), the Financial Regulation of the Council of Europe no. 1605/2002 or the Manual of Governmental Financial Statistics (GFS), prepared by the IMF, through the statistics department. (Nistor, 2009)

Based on the provisions regarding the local public finances, the accounting law and the methodological norms for the hiring, liquidation, ordering and payment of the expenses of the public institutions as well as the organization, recording and reporting of the budgetary and legal commitments, approved by the Order of the Minister of Public Finances no. 1.792 / 2002, the public institutions must follow the procedures regarding the four phases of the budget execution of the expenses, respectively their employment, liquidation, ordering and payment. In order to comply with the aforementioned provisions, their own methodological norms were elaborated, which have as their object the establishment of the procedures, of the persons involved and of the documents regarding the execution of the expenditures that are made from the public funds, at the institution level.

The changes in public management in recent years have led to a remarkable development in the field of public accounting. Public accounting is able to provide information on better budget management, as well as on the correct and appropriate use of public funds, thus ensuring users the best economic decisions. For fulfilling

this requirement, it is necessary to switch from a cash accounting, oriented on resource inputs to a results and performance oriented approach - commitment accounting.

**In the transition to commitment accounting**, Romania took into account the requirements of the Financial Regulation applicable to the general budget of the European Community no. 1605 / 25.06.2005 and of the European Commission Regulation on the detailed rules for implementing the Financial Regulation no. 2342 / 23.12.2002, Chapter “Accounting and presentation of accounts”, regarding:

- methods of valuing assets and liabilities;
- generally accepted accounting principles;
- structure of the plan of accounts;
- structure of financial statements.

As a future member country of the European Union, Romania has been concerned with the adoption of European legislation in the field of public accounting, at this time reporting important achievements on the transition line to commitment accounting:

- the recording of tax receivables from January 1, 2003;
- calculating and recording the depreciation of fixed assets as of January 1, 2004;
- making and experimenting with the new accounting regulations in 2005;
- training of personnel from the financial-accounting departments by the National Institute of Administration and the Regional Vocational Training Centers.

During 2005, a series of measures were taken to improve the system of allocation and use of public funds and to ensure the modernization of the public accounting system.

In 2005, several pilot entities were involved in the process of full implementation of commitment accounting, the transition to commitment accounting for all public institutions in Romania taking place only from January 1, 2006. However, for pilot entities there were no public information on the success or not of the pilot project. (Pitulice, 2013, p. 57)

By Order no. 2021 / 17.12.2013 for the modification and completion of the Methodological Norms regarding the organization and management of the accounting of the public institutions, the Accounting Plan for the public institutions and the instructions for its application, approved by the Order of the Minister of Public Finance no.1917 / 2005, published in the Official Monitor no. 831 of December 24, 2013, in order to comply with commitments agreed with international bodies, for the modification and completion of normative acts, as well as establishing

the reorganization measures within the central public administration, a new plan of accounts was issued, with development up to the level of synthetic accounts of the third degree. At the same time, the development of synthetic accounts in analytical accounts has as purpose the reporting of verification balances, in a unitary way, by all public institutions, towards the Ministry of Public Finance, starting January 1, 2014.

The above order completed the analytical accounting of the accounts with the following information: sector code, source of financing and classification of incomes (chapter, subchapter, and paragraph), functional classification of expenses (chapter, subchapter, and paragraph) and economic classification of expenses (title, article, and paragraph).

The same order established the correspondence between the expense accounting accounts and the income accounting accounts, the budget codes in the classification of public finance indicators.

Following the legislative changes regarding the reports imposed by the Ministry of Public Finance to the public institutions, with a view to the unitary centralization of the financial-accounting information, the plan of accounts has undergone a series of changes.

Thus, starting with 2014, the public institutions had the obligation to transpose the balances from December 31, 2013 into the new accounts in the plan of accounts approved by the Order 720/2014 issued by the Ministry of Public Finance, for the approval of the methodological Norms regarding the execution of the budgets of incomes and expenses of the autonomous public institutions, public institutions financed wholly or partly from own incomes and activities financed wholly from own incomes, including internal credit budgets, external credit budgets, non-reimbursable external fund budgets, risk fund budgets and privatization activity budgets, managed by public institutions, regardless of how they are organized and financed, published in the Official Monitor of Romania no. 396 of May 29, 2014.

Therefore, all public institutions, regardless of the form of financing, were forced to use the same accounts and the same indicators in the economic classification, for a good centralization at the level of central and local public administration.

Institutions with financing from their own activities, financed entirely from own revenues and subsidies, financed entirely from own revenues until the end of 2014 used accounts available depending on the source of financing. Starting with 2015, they were obliged to transfer all the amounts collected and paid on the functional and economic classification.

#### 4. Conclusions

Accounting harmonization in the public sector has, at international level, the International Public Sector Accounting Standards (IPSAS), elaborated by the International Public Sector Accounting Standards Board (IPSASB), body whose objective is to support the public interest, by developing high quality accounting standards to be used by public institutions in the process of preparing general purpose financial statements. The main objectives of the IPSAS referrals are to support the accounting harmonization process, increase comparability, but also to improve the transparency of public sector information presentation. The application of these standards is not mandatory (Tiron-Tudor, 2010), but only recommended, depending on the free choice of public administrations or on various pressures exerted by certain institutions. In addition, at European level, lately, the creation and development of EPSAS (European Public Sector Accounting Standards) by the European Commission, through Eurostat, aims at achieving an accounting harmonization between the Member States of the European Union. Regarding the use of the accounting system based on commitments in the public sector, the general tendency manifested in the specialized literature is to appreciate its superiority, compared to the cash based accounting system, due to the sound expertise and professional reasoning that it requires. However, the results of some research indicate that, in some jurisdictions, the cash-based accounting system is more suited to the needs of the public sector.

Regarding the accounting harmonization in the public sector, it is internationally supported by the IPSASB, body responsible for the development of IPSAS, the main instrument used to achieve the aim of accounting harmonization. In Romania, the development of public sector accounting was initiated in 2002 and imposed on all public institutions in 2005. The transition is still a static process, although there are many aspects to be clarified. The changes in the accounting plan over the last ten years have been profound, the Romanian accounting system being subjected to a broad and serious process of reform, in order to adapt to the new economic, political, legal and, not least, social conditions. In the public sector, the changes sought to optimize the budgetary foundation and execution so that they reflect, in real terms, how the public money is spent in order to achieve the general interest objectives of the entity.

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## **The Dynamics of Tourism Management in Suceava County – Romania**

**Ionel Sergiu Pirju<sup>1</sup>**

**Abstract:** In contemporary European Union tourism has become one of the most valued economic activities and the tourism management it is a discipline which attracts millions of young people. The European legislation is based on the orientation towards excellency in this field because the best practices for the protection of the consumer are constantly developed. In European Development Regions, as well as in Suceava County, the tourism involves the assuming of a wide range of responsibilities in order to provide a focus of efficiency for the customers. Tourism is an important source of income for this region and is strengthening the development of the settlements through an efficiency management. The main objective of this article is to analyze the indicators of tourism circulation in Suceava County situated in the Romanian Nord East Development Region. The approach is mixed (qualitative-quantitative) and the intention is to present from a diachronic point of view the performance in attracting the tourists in this field.

**Keywords:** Tourism management; tourism indicators; Suceava county; performance; customers

**JEL Classification:** Z32

### **Introduction**

In tourism management a long term planification for attracting the most compatible client is the criterion to appreciate the excellence, and the performance is related to it. To achieve the above mentioned desiderate the leader must increase the conscience of fidelity for the employees as measure to protect the business for the economic failure (Coleman, 2007).

In this economic field, the importance of managers is quintessential and is never recommended to place their status on second position. Besides the responsibility to

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take the decisions, managers are the most important connoisseurs of the client's reactions and the diplomacy of negotiation is a skill when any discontent can be seen from their target group.

The most important tasks are to think objectively and analytically and to create a favorable working environment which is representing the unity of the institution in the eyes of the customers. The management pursues a long-term excellency, because the most insignificant feedback from the customers can be synonymous with bankruptcy. The reputation of a nation, region or county is possible to be maintained regardless of the competition and this reputation can be long term maintained if the tourism companies are continuously monitoring their objectives. The tourism it is an important sector which can play a significant part in achieving economic growth by reducing the unemployment and the tourism industry is a priority basis for the nations (Turtureanu, 2005).

The intention of this article is to present and analyze the indicators of tourism circulation in Suceava County situated in the Romanian Nord East Development Region. In this development region the investments in tourism are not entirely satisfactory, but in the Suceava County the tourism management is performance oriented and is attracting an important number of national or international visitors. The attraction of the European Grants for the tourism sector has achieved in last years an acceptable level, so the long-term success is achievable.

Even the national statistics are showing that the number of foreign tourists is constantly increasing, the Suceava County compared to other European regions, is having a least profit from tourism, compared to its potential. For attracting the proper customers, the management strategies are crucial and, in this region, and as a strength point the local society encourage the improvement of tourism management as criteria for the recognition of local cultural, geographical and historical heritage.

### **Tourism Management – Efficiency for People through People**

Tourism management is representing for the European Union an area of excellence and an example of sustainable development. Countries as Spain, Italy, or France are supporting their economy on tourism revenues, while other countries, including Romania fail to capitalize the potential of the nation's heritage.

According to United Nations World Tourism Associations (UNWTO) the definition of tourism is presented below: "Tourism comprises the activities of persons traveling

to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes.” (UNWTO, 2019).

The travel of the people, in organized groups, family or alone, is involving first the displacement outside their native hinterland, and for their recreative activities the beneficiaries are not remunerated within the place visited. This means that tourism is different from the corporative internship and is have no limits of recreation or purposes.

Efficiency in tourism management consists in adopting the best measures to achieve productivity, by using efficiently the resources of the agency / hotel or tourist resort in order to reach the objectives (Cojocariu, 2010). In our opinion this efficiency can be increased by maintaining the orientation towards the environment and to believe in the subordinates, because the trust and appreciation it is an important incentive to obtain excellent initiatives from the staff. Practically in this form of management the results cannot be obtained by themselves, they are involving the teamwork, and the success cannot be never individual, only collective. Any kind of activity specific to tourism must be planned with great accuracy, because in the future, a good manager can be sure that a satisfied customer will return to his services.

The team effort will make the costs more efficient so that the objectives could be achieved, but without neglecting the quality of the services offered to the clients. Any tourism organization becomes effective only in those circumstances in which it undertakes only ethical activities in their realization, without affecting the initial objectives or the quality of hospitality (Tigu, 2005).

In Romania, the tourism management is in general organized, but in some national Development Regions the profile of tourism activities is not carried out in terms of efficiency and profitability. For the tourism field, the above-mentioned regions offer concrete possibilities for promoting the traditional areas with great access to the European funds at the regional level (Baltaretu, 2012). Each developing region deals with the promotion of specific values, accessing European funds for their promotion. In 1990, the European Commission decided that cultural tourism is the key element for the development of the industry in Europe (Neacșu, 2009). This new strategy has facilitated the development of the Atlas tourism association, which since then deals with the transnational study of the European cultural tourism approach (Richards, 2006).

The organizational function in management implies special requirements, adaptability is required according to the preferences of the clients, so that optimal solutions must be identified in order to achieve excellency. The strategic orientation is a key to avoid the lack of goals in tourism management (Borza, 2014), but optimal solutions are not constantly followed in Romania. Efficiency in tourism management depends not only on the way in which a company is oriented in its region, but also is based on the way in which human relations are established and developed both inside and outside of the institution. A satisfied staff not necessarily material, but also affective, will maintain loyalty to the company and will not leave it even in time of crisis.

Tourism management is focused on loyalty, a good leader will always know how to be authoritative without affecting the self-esteem of subordinates. Unfortunately, in some Romanian companies, these aspects continue to be not applied. Therefore, the basic knowledge of tourism management strategy can relax the organizational climate and correct the behavioral errors. The tourism concepts and the strategy from which the Romanian companies can be inspired are international promoted by the: United Nations World Tourism Associations (UNWTO).

The organization is a standard of good practice for any country and its values correspond to European principles regarding international tourism. Romanian travel agencies and the operators of specific services can find in this organization the model of ethics necessary for prosperity. Professional training, environmental protection for the harmonious development of tourism activities are excellent presented in the principles of UNWTO.

The organization's provisions can complement the national laws in the field, improve them and bring profitability to the hotel industry. The objectives of this organization are subject to the principles of the UN Charter, and of the most important are:

- Increasing the role of international tourism for the development of peace in the world;
- Gaining access to culture;
- Maintaining the tourist connection between countries and organizations (UNWTO, 2019).

As final remark for this part, a good manager in tourism is not a dominator, he is responsible for his own activity, therefore he must ensure a balance within the company giving a professional example to the subordinates. The efficiency in the

management of the tourism companies is obtained in those situations in which the mediation works, that cohesion between the management and the staff is created in order to offer impeccable services to the clients.

### **Tourism Development in Suceava County**

Suceava County, the second largest in Romania, is located the northeastern part of the country, between (2022 m altitude, Calimani Mountain) and (233 m, Siret River Valley), in a natural setting dominated by central and north bioclimatic elements. This area is characterized by rich and abundant natural resources, more than 50% of the land is made of woods, the subsoil is rich in minerals, natural waters, and 40% of the surface is perfectly arable (Ilinca, 2008). The county is related in the collective mentality to the medieval Moldovan state's foundation and to the preservation of the Romanian cultural identity.

The tourism development is well represented in this County and local interest in promoting the cultural heritage is higher compared to other regions, in consequence the population is interested in owning hotels, motels, tourist villas, guesthouses, stalls etc.

Among the most important tourist attractions is the fortress of Suceva city, built by the ruler Petru I Mușat, a renovated stronghold located right next to the village museum and which receives a very high number of national and international visitors. The medieval festival, which has recently begun to be organized, is a local attraction and starts to have a good track record.

In region it is very famous the cultural tourism, especially due to the monasteries included in UNESCO's heritage and the Bucovina, part of this region, is known as the land of the 1000 churches. The most important monasteries (Putna, Voronet, Probota, Humor Arbore etc), all of them Orthodox Christians churches, are largely characterized through a unique exterior painting, which impresses the visitors with a non-verbal and aesthetic message.

For the nature lovers, the Carpathian Mountains offers possibilities for the lovers of the outdoor movement to practice mountaineering, skiing, cycling, as well as horseback riding on mountain trails. On these mountains can be visited archaeological sites from prehistory, from the Dacians era as well as numerous medieval vestiges. Vatra Dornei resort, which is also known as "Bucovina pearl", is

a thermal tourist destination, international recognized by the ski slopes, which are organized during the cold season.

Very popular it is rural and artisanal tourism through which those who wish can take courses of pottery, sculpture, painting of icons, egg laying etc. In the last 2 years there have been emerging a series of local entrepreneurs promoting the traditional villages from Suceava, real guardians of the ancestral folk treasure. For example, in the small village of Dolhestii Mici with a population of 1200 inhabitants, the initiative of a local businesswoman attracts hundreds of tourists from United Kingdom, Italy, Spain, Greece, Israel and Japan. For the tourists was developed a foray into the local cuisine, an authentic folklore show representation, as well as the possibility to visit native traditional craftsmen.

We can find spa tourism resorts, especially the carbonated, sodium or magnesium waters of the Vatra Dornei area contribute to the curative treatments for many problems. Equally importance for the local economy are having hunting and fishing tourism, horse riding, or winter sports tourism which are constantly promoted. All this form of tourism are the expression of decisiveness and efficiency of the people and are key characteristics which rewarded the character of a region where making progress is essential.

### **The Indicators of Tourism Circulation in Suceava County**

The numerical indicators of tourism circulation aim to quantify the variables in this domain and are officially registered at national level. With their help the tourism policies are established at European, national and regional level helping in the selection of the best management strategies in the field.

Suceava County has unique landscapes, a crucial history for Romanians, but also exceptional traditions and monuments. Most of the monuments have not only a historical value but also a religious and cultural importance and constantly the hotels and guesthouses in the area operate at maximum capacity. Therefore, in the last years numerous investments have been made in increasing their number, and the contemporary situation is presented in the figure below.



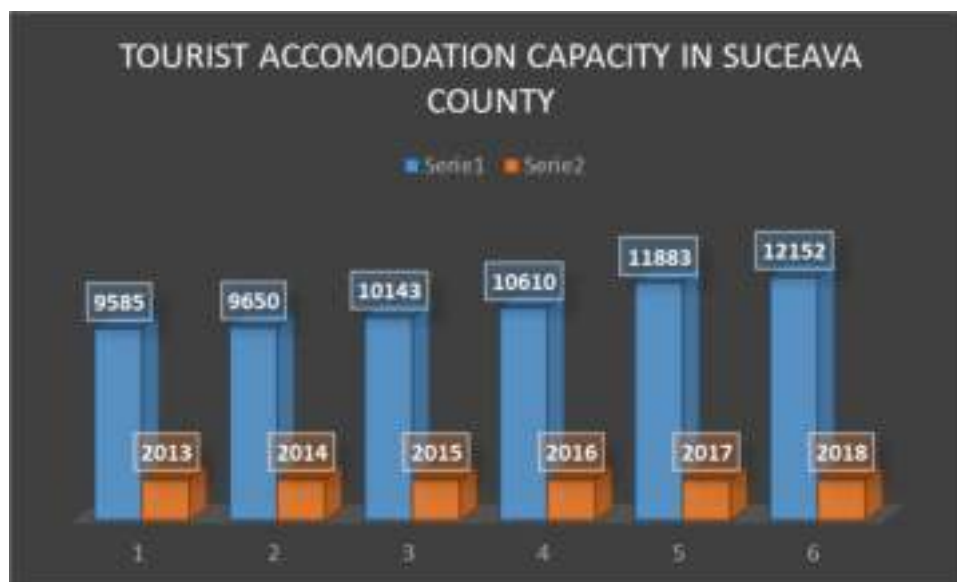
**Figure 1.**

*Source: Author apud Tempo Online <http://statistici.insse.ro:8077/tempo-online/#/pages/tables/insse-table>*

If in 2013 existed 295 tourism accommodation structures, due to internal and external demand their number reached 460 centers. The statistics prove that the visitors perceive the local tour operators as consultative to their needs combined with honesty and trust. This tourist structures are not characterized by a domineering elitism; the spirit is to create a familiar approach for the tourists with no cultural bias or discrimination. The region is cross cultural, and the business tourist organizations are opened to the needs of the customers and offers great importance to open new centers for different national, regional religious or ethnic cultural tourists.

As we can observe from the next figure, the tourist capacity in Suceava County increased from 9,585 places in 2013 to 12,152 places in 2018 which suggest that a person coming for abroad will have a great variety to select the type of accommodation. The development of the number of accommodation places means that in the region the tourism operators are seen as having personal skills as: trustworthiness, integrity and charisma. This could be very significant because by increasing their accommodation capacity the firms are demonstrating their

performance on the profile market and the ability to understand how they could work out strategies for future directions.



**Figure 2.**

Source: Author apud Tempo Online <http://statistici.insse.ro:8077/tempo-online/#/pages/tables/insse-table>

The tourism arrivals almost doubled in the last 6 years, from 241,629 persons in 2013 to 430,673 persons in 2018 (Figure no.3). The various popular festivals, religious pilgrimages, especially the Saint John summer ceremonies, the mountainous landscape, the medieval strongholds, the painted monasteries are poles of attraction. There is also a movement toward a liberal culture, and the young people needs to demonstrate their chance to success by organizing medieval festivals, gastronomic exhibitions or rock concerts. All these combined are decisive and inspirational in attracting new visitors and their success it is confirmed from the national and international media analyses of Suceava county.





**Figure 3.**

*Source: Author apud Tempo Online <http://statistici.insse.ro:8077/tempo-online/#/pages/tables/insse-table>*

The overnight stays in tourist accommodation in Suceava county also almost doubled from 577,232 persons in 2013 to 909,535 persons in 2018 (Figure no. 4). Even if the Romanian society is still controlled by micromanaging bureaucrats, in Suceava county we can note among the entrepreneurs the ability to reduce uncertainty and to increase the level of economic stability. The success of overnight stays means that performance is valued highly by the tourist operators and the respect for the visitors is driven by egalitarian values and cross-cultural respect.



**Figure 4.**

Source: Author apud Tempo Online <http://statistici.insse.ro:8077/tempo-online/#/pages/tables/insse-table>

From the above presented figures, we noticed that in Suceava County the tourist accommodation companies are oriented in planning and investing in the future and the bonus for their success is represented by the collective gratification. It reflects excellent practices in tourism which encourage the collective action of the society from this County. The cohesiveness in the tourism organizations approach expresses the pride and loyalty for the regional history, culture, tradition and religion.

The excellent results presented in the data collection it is an expression of a society where the performance and excellence it is encouraged and the conceptualization of an active tourism management it is affiliate to a *modus vivendi*.

The local work capacity it is manifested through this diachronic performance in enhancing the tourism capacity and this is a reflection of an effective leadership of a society eager to present to foreigners their values and motives of living. Reflecting on this statistical data, we may infer that in this region exists a social behavior with etic aspects and the organizational practices in tourism management are starting to be compatible with the European model. To achieve the aforementioned performance in increasing the number of overnight stays and tourism arrivals in this county the gap between theory and practice has been overcome, concrete measures

to increase the quality of the services have been taken and the impact of effectiveness is real in the life of the tour operators.

To support the success, In Suceava County there is an organizational leadership as “the ability to influence, motivate and enable others to contribute toward the effectiveness and success of the organizations of which they are members” (House & Javidan, 2004). The leaders from tourism management are starting to plan joint ventures, merges and acquisitions which is giving reliability and validity of their actions.

But this organizational leadership has no influence on magnetize the visitors without the attitude and the performance of the entire group as phenomenon for the attraction of national and international tourists. The cross-cultural groups from Suceava (Romanians, Ukrainians, Poles, Gypsies etc.) are writing the county specific description of their traditions in which they interpret their perspective for the future in order to develop their live according to the modernity, but without abandoning the roots of the ancestors.

## **Conclusions**

Tourism management is a basic pillar for the European economy, and its development is a priority for the Union. Romania has traditional regions that conscientiously apply the policy of competitive tourism but in most of the regions the performance in this sector is far below from the market demands.

An inefficient privatization has led to the deterioration of many iconic resorts which were emblematic for the quality of tourist national services. The qualitative standards set by the EU as well as the possibility of accessing the European funds have given the possibility for the tourism sector to enhance the performance at the level of macro-enterprises and at the level of micro-enterprises. There are picturesque regions that have accessed a minimum of funds and have remained in total anonymity but also regions that have capitalized strengths in this sector.

Suceava is part of the second sample, and the local initiatives can be an example of good practices at national level. The tourism in Suceava county it is in interrelationship with multiethnic societal culture, it is an indicator of regional economic competitiveness and it is influencing step by step the local organizational practices. Even if geographically, the area is blessed, in fact the promotion of quality

is the best asset for a very well-educated community with no authoritarian attitudes and respect for the minorities.

Tourism management here increased the participation in the labor force of traditional families who have opened micro accommodation centers, and the professionalization of this business management is becoming influential in the regional evolution. Tourism management in this area has no individualistic trait and is based on the promotion of the collective historical and cultural values in a sense of humanity, kindness for the guests and sharing.

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