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Accounting Policies, Management Judgements and Financial Reporting Quality of Small and Medium Enterprises In Nigeria: A Survey

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Abstract

The accounting policy adopted by an enterprise, together with the level of approximations done by the management in financial statements, could either enhance or impair their relevance and reliability and, by extension, the credibility of financial decisions made by users of such reports. This is because financial statements portray the financial position and performance of entities. This study assesses the influence of management's choice of accounting policy and accounting approximations in financial statements on the quality of financial reports of Small and Medium Enterprises in Nigeria. The study was anchored on the Stakeholders' theory. The study also adopted the survey design approach. Data were mainly collected through the questionnaire and was analyzed using descriptive statistics and regression techniques. Findings revealed that wrong accounting policies and judgements might affect the quality of financial reports, together with other factors. It was recommended that small and medium enterprises management adhere to accounting standards when designing their accounting policies and in their judgements/approximations to reduce material errors and enhance the quality of their financial report.

Keywords: Accounting Policy, Management Judgements, Accounting Approximations, Financial Reporting Quality.

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1. Introduction

Financial statements are mainly stewardship reports prepared by management to all stakeholders to show the entity's financial status; in terms of performance, financial position, and changes in

financial position (Nangih, 2018). They are agency reports; meant to serve as guidelines for the assessment of the entity by users. Akenbor & Kiabel (2014) opined that the content of financial statements information influences the decision of stakeholders in their relationship with the business. For instance, it enables the creditors to assess the business's creditworthiness, helps the government know how much tax the business should pay, and provides a clue to the owners or investors on their returns on investment. They also serve as traffic signs, indicating the pathway along which the firm is navigating. An objective and reliable accounting information is a prerequisite for a proper decision-making process since they portray the entity's actual financial position and business performance as a particular date. Accordingly, all the numbers must be factual for financial reports to be relevant, reliable, understandable, and accurate. At the same time, the estimates and disclosures made by management must be reasonable, realistic and reliably based on the underlying accounting frameworks or standards. Accounting policies and management approximations are employed by management for transactions for which there are no precise means of measurement. They are usually employed in historical financial statements to measure the effects of past business transactions or the present status of an asset or liability. They are subjective and relative; therefore, prone to management bias.

A poor financial reporting quality occurs when the accounts is misstated and do not show and fair view of the entity's underlying records or economic events at any point in time. It arises when there are misstatements in the amounts, classifications, presentation, or disclosure of items in the financial statements against relevant accounting standards. Hence, the misrepresentations in financial reports are considered material when the user of a set of financial statements alters his economic decisions due to such misstatements (International Accounting Standards Board, (ISAB, 2010). Examples of poor quality financial statements, which may arise due to error or fraud include: 1. where an incorrect amount has been recognized (for example, an asset is not valued following the relevant IFRS requirement) 2. an item is classified incorrectly (for example, the finance cost is included within the cost of sales in the statement of profit or loss or presentation is not appropriate) 3. the results of discontinued operations are not separately presented, 4. impairment loss not correctly estimated, 5. depreciation provision wrongly estimated, 6. inventory either overstated or deliberately understated, etc.

Though debatable, it is evident that accounting judgments and estimates are interlinked to the extent that both are highly subjective and significantly affect an entity's financials. It could be argued that the risk of misrepresentation of facts in financial reports could be caused mainly by the use of wrong management judgements and accounting policies, either intentionally or erroneously, by the preparers. Such may lead to the overstatement of income or the understatement of expenses in future periods. Galrat & Winsley (2011), on their part, suggest that accounting estimates are management predictions of the monetary value of financial transactions and events whose measurement is uncertain. Accordingly, all accounting approximations, by the management, represented in financial statements should be measured by

applying relevant international financial reporting standards to make it relevant, reliable, understandable, comparable, devoid of any material misstatements that can be deceptive and alter the views of the users. This is because even International Accounting Standards Board (IASB), like the International Financial Reporting Standards' standard-setter, admits that "to a large extent, financial reports are based on estimates, judgements and models rather than being exact depictions" (IASB, 2015). That shows that making approximations implies a certain level of subjectivity to the extent that two different estimates for an item can result in different results or effects on the financials. For this reason, the regulators (including auditors) have always emphasized the importance of disclosures regarding critical accounting approximations and managements' judgements done in the financials since they significantly affect the way profits are determined and users' perception by extension.

It is believed that the study will contribute to existing literature and also benefit a wide range of people- including the owners, accountants and managers of corporations, small and medium-sized businesses. It will also provide them with the proper knowledge to efficiently formulate the right accounting policies to manage their organizational resources. Again for researchers and students, it will serve as invaluable reference material for further research on related topics.

The following research questions were expected to be answered by the study:

to what extent do inventory policy and management's judgement on inventory valuation affect the faithful representation of financial reports? How much do depreciation policy and management's approximation of depreciation expenses in financial reports influence faithful representation? To what extent does amortization approximation and policy impact the faithful representation of financial reports? To what extent does impairment loss determination and approximations affect the faithful representation of financial reports?

Small and medium enterprises form a significant percentage of registered businesses in Nigeria. As such, they contribute significantly to the GDP of the country. The accounting policies, together with management judgements and approximations, particularly the SMEs, determine how transactions are measured, recognized and presented in financial statements. These form the bulk of transactions reported by an entity. Accordingly, management judgements and approximations arguably may impair or improve the faithful representation and relevance of financial information rendered by managers. Sagam (2006) asserts that even though management's estimation requires the involvement of competent staff using reliable and relevant data, there was a potential or likelihood of bias in the subjective criteria used in the estimates depending on what they want to achieve.

Given the prevalence of several management judgements in the measurement and recognition of items in financial statements, whether these opposing forces will result in an improved financial information quality or not is debatable and forms the most crucial issue to recent accounting researchers. Prior studies have tried to link accounting judgments and financial reporting quality

in Nigeria, but the findings were inconsistent and highly controversial. Aside from that, the variables used were limited. For instance, Akenbor & Kiabel (2014), Nnah (2017), Ayunku & Eweke (2020), Nangih & Anichebe (2021), etc., all tried to carry out studies related to the subject matter. However, we are not aware of any study examining the interconnectedness between accounting policies and management judgements (or approximations) and the quality of financial reports in Nigeria, particularly among SMEs. This study was meant to fill that gap and indicates our point of departure.

2. Literature Review

2.1. Financial Reporting Quality and Measure

Financial statements show the company's financial position and business performance (Nangih 2018). To ensure that the financial statements of an entity agree with financial reporting standards, directors are required to make reliable estimates, judgements and assumptions that affect the numbers reported in their financial reports. Since accounting judgements and approximations are subjective by nature, their results may not be the same; depending on who and the circumstances under which or the purpose for which such approximations are made. Misrepresentations and alterations in financial statements' quality arise where there is an inappropriate use of accounting policies, errors and material misstatements in financials, either deliberately or otherwise (Nangih & Anichebe, 2021). It implies wrong estimates/judgements, which affects the faithful representation of the underlying numbers included in the financial statements. Simply put, such financial statements lack quality of relevance, faithful representation, understandability, and even comparability.

In this study, faithful representation was used to proxy financial reporting quality.

Accounting Policies and Management Approximations

Accounting policies are the specific principles, bases, conventions, rules, and practices applied or put in place by an entity to prepare and present financial statements (IASB 2010). Accounting standards set out the policies for financial statements and conditions to which they apply. On the other hand, management judgements are estimates or approximations made in financial statements usually based on historical evidence or information available to them and in line with certain accounting practices, bases, or methods. Accordingly, they are based on subjective and objective factors at the prerogative of the financial statement preparers.

Accounting standards represent an essential source of accounting estimates. IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors* states that a change in an accounting estimate is 'a change in the carrying amount of an asset or a liability, which emanate from the appraisal of the current status of, and expected future benefits and obligations associated with, assets and liabilities. Making accounting approximations, judgements and deciding accounting policy is a complex process that connotes obtaining all required information about the topic. This

study discussed the following dimensions of accounting policies and management judgements: inventory approximation, depreciation approximation, amortization approximation and impairment approximations.

Inventory policy and Approximation in the financial report

International Accounting Standard 2-inventories deals with the scope, measurement, recognition, presentation and disclosures of inventories. It specifies that the nature of inventories. These may include; raw materials held for production, finished goods held for sale, work in progress (semi-finished goods) or consumables (Bhattacharyya; 2011).

IAS 2 states that inventory should be measured at the lower costs and net realizable value. It specifies that management can choose between the First in First Out or weighted average cost methods when assigning costs to inventory (IASB 2010). This implies that management has alternatives and can estimate the value assigned to closing inventory using either of the methods specified in the standard (Nangih & Anichebe 2021). Ultimately, the resultant effects will not be the same, depending on the method adopted, especially where deliberate manipulations occur. Usually, the method adopted, the cost formula applied, and the measurement criteria adopted by the entity; are indicated in the accounting policy.

Depreciation Policy and Approximations

The entity's depreciation policy shows the method of depreciation applied by the firm to prepare and present financial statements. By definition, depreciation is the systematic spread of the assets' depreciable amount over its estimated useful life (IASB 2010). It is an estimation of financial requirements since the only way to know how much an asset has depreciated is to value it periodically. Bhattacharyya (2011), maintains that depreciation provision is made to show that the entity recognizes the entire costs associated with a non-current asset over the entire period the firm will use it.

Most small businesses use the straight-line depreciation method, which assumes that an asset will depreciate by the same amount each year over a specific period (Bhattacharyya, 2011). Others use the reducing balance method of depreciation. However, both methods are based on management's judgements and approximations and will produce differing results on the entity's financial reports.

Amortization Policy and Approximations

The entity's amortization policy affects the amortization provisions made in the financial statements for intangible non-current assets. The policy usually shows the amortization applied by the firm in the preparation and presentation of financial statements. Amortization, by definition, is the systematic spread of the depreciable amount of intangibles non-current assets over its estimated useful life (Bhattacharyya; 2011). It is the spread of intangible non-current asset's depreciable amount over their estimated useful life. It is calculated to show that the entity

recognizes the costs associated with intangible non-current assets over the entire period the firm will use them. IAS 38-*Intangibles non-current assets* provides two methods of systematically allocating the depreciable amount of intangibles: either based on the volume of sales or based on the number of units of production (Chukwu, 2006). However, both methods are based on estimates, which will, in turn, produce differing results.

Impairment Policy and Approximations

According to IAS 36 *impairments*, an asset is said to be impaired when the recoverable amount is less than its carrying amount. It means that the asset's carrying amount is greater than its recoverable amount as at statement of financial position date. According to the standard, an asset's recoverable amount is the higher of its fair value minus disposal costs and its value in use. It further specifies that the fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. In contrast, the value in use is defined as the present value of future cash flows from using an asset, including its eventual disposal.

Essentially, an entity must carry out an impairment review when evidence or an indication that impairment may have occurred. Chukwu (2006), stated that at the end of each reporting period, an entity should assess whether there is any indication that impairment might have occurred. If such an indication exists, the entity must estimate the asset's recoverable amount; which is the higher of the assets fair value less costs to sell and its value in use. The method of impairment loss determination, the event which led to the recognition of impairment, the amount of impairment loss, the discount rate used in the determination of the asset's value in use, etc. must all be disclosed in the notes to the accounts as part of the entity's accounting policy.

2.2. Theoretical Review

This study was anchored on the Stakeholders' theory. The theory was propounded by Freeman (2004). Stakeholders have a stake or are connected to and are directly or indirectly connected to the entity. Bassey, Effiok & Eton (2013) opined that stakeholders are groups or persons, which are influenced by the corporate activities or affect the entity either directly or indirectly". The success of any organization, in the long run, is dependent on the support and approval received from its stakeholders. Accordingly, the more influential the stakeholders are on the organization, the more the entity must adapt to their demands and needs to enjoy their support and patronage continually.

The basic assumption of the stakeholders' theory is that the firm's growth is a function of the successful management of its relationship with its stakeholders. It posits that the proper management of its stakeholders could affect the firm's performance. Therefore, the stakeholders' model advocates for an increased level of environmental awareness among business enterprises to the needs of its stakeholders. According to Freeman (2004), stakeholder theory begins with the notion that values are unavoidably part of business activity. In the day to day activity of a firm,

there is a variety of stakeholders that relates to the firm besides the shareholders, including employees, customers, suppliers, governments, etc. According to Deegan (2004), the moral perspective of stakeholder theory is that all stakeholders have a right to be treated fairly by an organization, and managers should manage the organization for the benefit of all stakeholders, regardless of whether the stakeholder management leads to better financial performance. Therefore, the fundamental aspect of stakeholder theory is to identify the stakeholders an organization is accountable to, as these stakeholders are relevant if their investment is, in some form, subject to risk from the activities of the organization.

The relevance of the stakeholders to this study is that entities should be mindful of their needs and make conscious efforts to protect them at all times, as their actions and perceptions can affect the firm positively or negatively.

Empirical Review

There are limited empirical studies that assess the role of accounting policy and management judgements in enhancing financial reporting quality in Nigeria. However, several studies have examined the impact of information disclosures on financial statements quality. For instance, Nnah (2017) examined the impact of accounting estimates on the financial reporting quality of manufacturing companies in Nigeria. Employing the questionnaire as a source of data collection, which was tested by the multi-correlation analysis method, it was found that accounting estimates had a significant relationship with financial reporting quality.

Lugovsky & Kuter (2020) investigated the effect of accounting policies and accounting estimates and their role in preparing fair financial statements in the digital economy. The study was carried out in Russia. The study used the exploratory research design and considered the main problems and limitations of the reliable preparation and presentation of reporting financial information. The study concluded that the degree of freedom provided by standard setters to preparers has a severe influence on the reporting data presented to the users. It also added that the reliability of financial reports is influenced by many other factors including but not limited to the choice of accounting, depreciation policies, the legality of the transaction and changes in accounting estimates.

Nangih & Anichebe (2021) assessed the effects of accounting estimates on information misstatements of financial reports of Small and Medium Enterprises in Nigeria. Specifically, the study examined the impacts of depreciation estimates, impairment loss, inventory estimates, goodwill estimates and estimated useful life of assets on Financial reports. The population was Small and Medium Enterprises in Nigeria. The study employed the survey research design. Data were mainly collected primarily through the questionnaire and was analyzed descriptive statistics and regression technique via SPSS statistical software. Findings revealed that wrong estimates might lead to, but are not the only cause of misstatements in financial reports.

Putri & Suputra (2019) investigated the effect of disclosure of financial reports and managerial ability on earnings management in Indonesia from 2012 to 2016. Using a sample of 375 companies and audit quality as a moderating variable, the study – based on 33 voluntary disclosure items, found that disclosure of financial reports affects earnings management but had no significant effect on managerial ability.

Kanakriyah (2016) examined the impact of voluntary disclosure on the quality of accounting information according to users' perspectives in Jordan. Using the semi-structured interview conducted on 12 respondents drawn from 6 groups of accounting information users (financial managers, financial analysts, auditors, academics, creditors and investors), the paper found a strong effect of voluntary disclosure on the quality of accounting information. It was concluded that voluntary disclosure was vital in enhancing the economic decisions process.

Akenbor & Kiabel (2014) investigated the relationship between accounting estimates and the financial reporting of hospitality companies in Nigeria. It was discovered that accounting estimates had a significant relationship with the credibility of financial reports.

Ahmed, Mohammed & Adisa (2014) looked at the influence of provisions, a proxy for accounting estimates, in and earnings management in the banking industry. It was concluded that there was a positive relationship between provision for loan losses and earnings management.

Based on the research objectives, the following hypotheses were raised for the study:

H0₁: There is no significant relationship between inventory policy/approximation and faithful representation of financial reports

H0₂: There is no significant relationship between depreciation policy/approximation and faithful representation of financial reports

H0₃: There is no significant relationship between amortization policy/approximation and faithful representation of financial reports

H0₄: There is no significant relationship between impairment loss approximations and faithful representation of financial reports

3. Research Method

This study made use of the survey research design. In order to avoid accessibility difficulty, data was obtained employing purposive sampling technique from management staff (including finance and accounts staff) of some notable small and medium enterprises operating in Port Harcourt metropolis. The population is comprised of Small and Medium Enterprises located in Port Harcourt. In all, 125 respondents were selected, consisting of knowledgeable senior/management staff, accountants, auditors and tax consultants of some SMEs within the metropolis. This was considered the most relevant since data were sourced mainly from the questionnaire and other primary sources. The research instrument was subjected to vetting by

experts in research and academics, whose suggested corrections were included in the final copy of the questionnaire administered to the respondents. The instrument's reliability was determined using the Cronbach's Alpha, which revealed coefficients of .645, .712, .635, .589 and .715 FFRP, INAP, DEAP, AMTA and IMPA sub-items, respectively. Data collected were analysed using the descriptive, correlation and regression techniques.

3.1. Model Specification

In a bid to capture the impact of accounting policies and management judgements/Approximation on financial reporting quality in financial reports of SMEs in Nigeria, we developed a functional relationship in line with the dependent (financial reporting quality) and independent variables (proxied by inventory policies/approximation, depreciation policy/approximation, amortization policy/approximation, and impairment loss approximation) as:

$FFRP = f(INAP, DEAP, AMTA, IMPA)$.

This is further restated in a regression model thus:

$FFRP = a_0 + a_1INAP + a_2DEAP + a_3AMTA + a_4IMPA + U_t$.

Where FRPM= Faithful Representation, INAP= Inventory Policy and approximations, DEAP= Depreciation Policy and Approximations, AMTA= Amortization Policy and Approximations, IMPA= Impairment Loss and Approximations and U= Error Term

4. Findings and Discussions

4.1. Test of Hypotheses

The results of the test of hypotheses were presented in table 2 below:

Table 1: Correlations

		INAP	DEAP	META	IMPA	FFRP
INAP	Pearson Correlation	1	.247**	-.194*	-.045	.394**
	Sig. (2-tailed)		.006	.030	.619	.000
	N	125	125	125	125	125
DEAP	Pearson Correlation	.247**	1	-.191*	.276**	-.069
	Sig. (2-tailed)	.006		.033	.002	.447
	N	125	125	125	125	125
META	Pearson Correlation	-.194*	-.191*	1	-.243**	-.012
	Sig. (2-tailed)	.030	.033		.006	.896
	N	125	125	125	125	125
IMPA	Pearson Correlation	-.045	.276**	-.243**	1	.139
	Sig. (2-tailed)	.619	.002	.006		.123
	N	125	125	125	125	125
FFRP	Pearson Correlation	.394**	-.069	-.012	.139	1

Sig. (2-tailed)	.000	.447	.896	.123	
N	125	125	125	125	125

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

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

Source: Researcher's Computation using SPSS 23

Table 2: Regression Result Summary

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	-.316	.908		-.348	.728
INAP	.695	.121	.483	5.741	.000
DEAP	-.290	.105	-.238	-2.760	.007
AMTA	.136	.118	.097	1.153	.251
IMPA	.418	.144	.249	2.914	.004
R = .490	R ² = .240	Adjusted R ² = .215	F = 9.488	Sig. = .000	

a. Dependent Variable: FFRP

Source: Researcher's Computation using SPSS 23

4.2. Discussion of Findings

The results in table 1 show that the Pearson Correlation results indicate positive correlations between INAP and IMPA and FFRP, while AMTA and DEAP are negatively correlated with FFRP. However, only INAP is significantly correlated with FFRP. This suggests that inventory policy/approximation and the firms' impairment policy/approximations likely increase financial reporting quality. **Table 2**, the R statistic of .490, indicates that the independent variables have weak joint positive correlations with FFRP. The adjusted R² statistics of .215 reveals that the independent variables explain only 21.5% of the variations in the dependent variable. Thus, accounting policies and approximations do not purely account for the quality of financial reports. The F statistic of 4.88, which is significant at the 1% level, indicates that the model has a good fit.

Furthermore, the results of the t-statistics reveal that all the independent variables have positive relationships with financial reporting quality except INAP, which are equally significant except AMTA. The INAP of 5.741, which is significant at 1%, indicates that financial reporting quality is likely to increase as inventory approximation increases.

The negative relationship between depreciation approximation policy and financial reporting quality. In the case of DEAP, it is also found to be negative and significant at a 1% level of significance. This implies that depreciation approximations/policies are unlikely to cause

misstatement in financial reports of SMEs in Nigeria, which is because the basis for such approximations and management judgements are more realistic and can be more likely ascertained.

More so, the t-statistic of 1.15 and associated p-value of .251 for AMTA is also an indication that amortization of intangible non-current assets approximations can increase financial reporting quality of faithful representation, but it is not significant. The coefficient of .136 also shows that it can only constitute a small proportion of financial reporting quality. This is also supported by the correlation results, which shows a negative correlation with FFRP. This negates the findings of Nnah (2017). The reason is that, like depreciation approximations, the basis for its estimation is more realistic and accurate. However, its positive relationship with a faithful representation of financial reports is because amortization values may not reflect the actual fall in the value of intangible non-current assets in real terms.

Lastly, the regression result also established that impairment approximation due to management judgment has a high positive effect on faithful representation of financial statements, given the coefficient of .418 and t-statistic of 2.91, which is also significant at 1%. This was consistent with the findings of Akenbor & Kiabel (2014). The reason for this is that impairment loss is also tough to estimate, and thus, likely to increase the misstatements in the quality of financial reports of SMEs in Nigeria. The table above can explain as much as 41.8% of variations in financial misstatements, which calls for a more realistic basis of approximations.

5. Conclusion

The study examined the influence of accounting policies and management judgements on the quality of financial statements of small and medium enterprises in Nigeria. The results indicate positive correlations between inventory estimates or approximations, impairment policies/estimates, and financial reporting quality. In contrast, depreciation and amortization approximations are negatively correlated with a faithful representation of financial reports. Thus, accounting policy and management judgements do not only account for financial statement quality but other variables. Furthermore, the results of the t-statistics revealed that all the independent variables have positive relationships with financial reporting quality except inventory policy/approximations. Lastly, the regression result also established that impairment loss approximation has a high positive effect on the faithful representation or financial reporting quality, given the coefficient of .418 and t-statistic of 2.91, which is also significant at 1%. The study concludes that the use of accounting policies and management judgements, though contribute significantly to but are not the only factors responsible for SMEs' poor quality of financial reports. Therefore, the study recommends that management be cautious and follow the provisions of relevant accounting standards (usually the International Financial Reporting

Standards) when formulating accounting policies and making accounting judgements or approximations not to present a misleading financial report. It was also recommended that management ensure strict compliance to relevant accounting standards to ensure their financial statements are of high quality.

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Monetary Policy and Long Run Economic Growth in Nigeria: An Application of the Vector Error Correction Mechanism

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Abstract

The inability of most developing economies to use monetary policy to engender real economic growth in their countries prompted the researchers to empirically assess the impact of monetary policy on economic growth in Nigeria between 1980 and 2014. The study employed an econometrics approach making use of the ADF unit root test, Johansen cointegration, Vector error correction model, Pairwise granger causality test and variance decomposition. The Vector Error Correction Mechanism result shows a positive short and long run relationship between both narrow money supply and broad money supply and economic growth in Nigeria with model strength of 75%. The Pairwise granger causality test shows a bi-directional causality between broad money supply and economic growth in Nigeria and was statistically significant at 5% level of confidence. Recommendations were for the government to use her contractionary monetary efforts and implement relevant policies to curtail the inverse effect of the persistent variation in the value of exchange rate, price level and interest rate in Nigeria and adequate regulation of the quantity of money in circulation to avoid hyperinflation and other unpredictable monetary volatilities.

Keywords: Monetary Policy, Economic Growth, VECM, Nigeria

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1. Introduction

It is not quite easy to define monetary policy due to differences in the level of financial development of most economies. Monetary policy may be explained as an amalgam of measures designed to regulate the value, supply and cost of money in an economy to stimulate productive economic activity in the country (Jhingan, 2006). The general objective is to ensure price stability, maintenance of external balance, reduction of unemployment, growth in output, and sustainable growth and development (Folawewo and Osunbi, 2006).

These are long run economic growth measures that are necessary for the attainment on internal and external balance for an economy. Persistent price and exchange rate volatility undermine the ability of policy makers to achieve other laudable macroeconomic objectives which makes it

difficult for monetary authorities to achieve the role of money as a store of value, and thus discourage investment and growth. This long run inverse relationship between inflation and unemployment is popular in economic literature called the Philips curve (Jhingan, 2006).

However, the achievement of price stability will create a high degree of confidence among investors and the increasing desire on investors the government ability to manage and control her economy effectively. The transmission mechanism of monetary policy is less effective in an unstable and crisis ridden financial economy thereby making it difficult for the achievement and maintenance of strong macroeconomic fundamentals. The growth rate of Gross Domestic Product (GDP) in Nigeria for the past three decade has been poor.

This could be as a result of the failure of monetary policy in maintaining price stability in Nigeria when compared with other developing countries. GDP growth in Nigeria was significantly higher in the year 2000 than it was 35 years before. GDP recorded a negative growth rate in 1984 and 1995 (Ajisafe and Folorunso, 2002). This according to Anyanwu (1993) was inadequate to maintain a population growth rate of 2.8%. In 1991, a negative GDP growth of -0.8% was witnessed. However, the growth rate has been relatively higher since 2001 to 2015 when due to economic recession; it became completely negative between late 2015 and late 2017. The growth rate since 2001 can be said to be relatively poor when compared to other developing countries in Africa like Ghana, Cote d'Ivoire, South Africa, and Egypt (Baghebo and Ebibai, 2014).

A survey of empirical papers shows that several works such as Ajisafe and Folorunso (2002) and Folawewo and Osunbi (2006) shows that research effort have been concentrated on the impact of monetary policy on economic growth in Nigeria, but the result has been inconsistent and sometimes controversial with both positive and negative impact of monetary policy on GDP witnessed. But since monetary policy shocks are of great magnitude and concern, this has created avenue for further studies to contribute to current knowledge for updated policy making. This paper seek to improve on previous studies by employing the Vector Error Correction Model (VECM) to measure both the real and nominal effects of monetary policy on economic growth in Nigeria within the time frame of 1980 to 2014.

Monetary policy is concerned with discretionary control of money supply by the monetary authorities in order to achieve stated economic goals (Abata, Kehinde and Bolanrinwa, 2012). Governments try to control the money supply because most governments and policy makers believe that its rate of growth has an effect on the rate of inflation. Hence monetary policy comprises those government actions designed to influence the behaviour of the monetary sector. Monetary policy is a deliberate use of monetary instruments at the disposal of the monetary authorities in order to achieve a desirable economic growth (Miller, 2000). Broadly speaking, the key macroeconomic objectives of the monetary policy is to maximize the level of income, providing economic growth and development, raise the level of employment, improve balance of payments and ensure equitable distribution of economic resources (Miller, 2000). There are also a number of secondary objectives which are held to lead to maximization of income over the short and long run. While there are variations between the objectives of different national and international entities, most of them follow the ones outlined below:

Economic Growth and Development: It is the desire of every economy to attain some considerable level of economic growth and development. These concepts are sometimes used interchangeably as if they mean the same thing. However, economic growth according to Todaro (2000) refers to an increase in a country's national output of goods and services or increase in the volume of output of goods and services within a specific period. According to Schumpeter as cited by Jhingan (2006), economic growth is a gradual and steady change in the long run which comes about by gradual increase in the rate of savings and population, while economic development is seen as a discontinuous and spontaneous change in the stationary state which forever alters and displaces the equilibrium state previously existing. Thus, while economic growth is the increase in the total output of an economy over a certain period of time, economic development means growth plus change.

Price Stability: It is also the desire of every economy to achieve price stability. Fluctuations in the level of prices render an economy unpredictable to operators. However, debate on the concept of price stability has attracted the attention of several scholars and authors. Some of the scholars see inflation as a monetary phenomenon while others see it as both monetary and non-monetary phenomenon. Thus the debate has continued unabated with no universal consensus about the concept. Friedman as cited by Jhingan (2006) says "inflation is always and everywhere a monetary phenomenon and can be produced only by a mere rapid increase in the quantity of money than output". His view was supported by that of Hamilton (2001) when he described inflation as an economic situation when increase in money supply alone is faster than the new production of goods and services in the same economy. However, some economists disagreed with money supply alone as the cause of inflation. Hicks (1970) for example pointed out that our present troubles are not of monetary character". Melberg (1992) supported the position of Hicks when he defined inflation "as a general and persistent increase in the prices of goods and services in an economy without a corresponding increase in good supply". Most economist therefore defined inflation in terms of continued rise in prices caused by varying factors not necessarily money supply.

Full Employment: The International Labour Organization (ILO) as cited by the CBN defined unemployment as the proportion of the labour force which was available for work but did not work for at least one hour in the week preceding the survey period (CBN, 2007). The National Bureau of Statistics (NBS) as cited by the CBN defined unemployment as the proportion of the labour force that is available for work but did not work for at least 39 hours in the week preceding the survey period (CBN, 2007). The two definitions above have been seriously criticized for structural deformity. Not everyone who is available for work but did not work is unemployed. This led to the definition given by Miller (2000) when he defined unemployment as adults who are able, qualified and willing to work but have no job. The definition of Miller provides a better treatment of the subject matter of unemployment. For one to be unemployed, he/she must be able not disable, he must be trained with the skill to do the work in question and most importantly, be willing to do the work at the going wage rate in the labour market.

Balance of Payments Equilibrium: Balance of payments refers to the statistical relationship between a country's export and import in a given period of time usually one year. It refers to equilibrium in the balance of payments without the use of artificial constraints. That is, exports

roughly equal to imports over the long run. The key factors affecting balance of payments in most countries is the volume of production and exchange rate (Miller, 2000). In Nigeria, foreign exchange rate is the rate at which the naira is exchanged with other major currencies of the world like US Dollar and Pound Sterling.

Income Redistribution: This involves the use of credit policies to influence and regulate the economy. It implies that when income distribution in the economy is skewed in favour of the rich, government reduces it by imposing some monetary restrictions. This in turn reduces aggregate private spending which is dependent upon government expenditure. On the other hand, government issues out incentives and the use of open market operations to boost the purchasing power of the people or business companies (Miller, 2000).

2. Literature Review

Two fundamental propositions about the effect of the quantity of money on the economy predate the emergence of monetary economics as a recognized discipline of study. The first is that increases in the quantity of money that is not associated with the corresponding increase in real output will eventually lead to inflation, and the second is that a shortage of money can depress the volume of economic activity. A considerable literature has emerged, attempting to give credence or discordance to these propositions, using parsimoniously restricted multivariate time series models as Sims and Zha (2005) discussed. Friedman and Schwartz (1963) inspired the campaign in their seminal work as they documented the strong time series correlation of monetary aggregates with both output and prices. They explained that these correlations did not primarily represent passive responses of monetary aggregates to development in the private sector, but instead mainly the effects on monetary policy shifts on the private sector (Nagel and Parker, 2003). From their argument, it follows that innovation in monetary policy variables have the potential for stimulating the economy when it is sluggish or cooling it down when it overheats.

The literature had identified several factors that determine the capacity of central banks to use monetary policy innovations to achieve counter cyclical objectives in the economy. One of such factors is the credibility of monetary policy. In this regard, credibility refers to the level of commitment of the central bank to following a set down monetary policy rule rather than following a discretionary approach. This is important because economic agents make their decisions based on the expected course of monetary policy as well as the current policy. Also, policy transparency which deals with the extent of policy disclosure and the timing of central bank communication according to Geraats (2005) are key success factors in evaluating the effectiveness on monetary policies.

However, Leeper (1996) and Bernanke and Mihov (1998) prefer to make the case for the choice of the monetary instrument used for intervention as the major determinant of the degree of impact. They both submit that the traditional approach of using changes in the money stock to stimulate or depress economic activity is inferior to the use of interest rate. This is because the growth rate on monetary aggregates depends on the variety of non-policy influences. Starr (2005) in the spirit of the new Keynesianism, focused mainly on the sticky and flexible nature of prices. No matter the opinion that different authors may hold about the major determinants of the

effectiveness of monetary policy, it is certain that the effectiveness of monetary policy shocks, is a function of a compound set of variables.

In the developed economies such as the United States of America (USA) and in some core European countries, there is substantial evidence of the effectiveness of monetary policy innovations on real economic parameters (Mishkin, 2002). However, for developing economies like Nigeria, the evidence is weak. For instance, Balogun (2007) used simultaneous equation models to test the hypothesis of monetary policy ineffectiveness in Nigeria and find that, rather than promote growth; erstwhile domestic monetary policy was the source of stagnation and persistent inflation. The idiosyncratic evidence inconsistent with theoretical expectations returned from different investigations in different countries is what economists usually refer to as “puzzles”.

The three most common puzzles identified in the literature are: the liquidity puzzle, the price puzzle and the exchange rate puzzle. The liquidity puzzle is a finding that an increase in monetary aggregates is accompanied by an increase in interest rate. The price puzzle is the finding that contractionary monetary policy through positive innovations in the interest rate seems to lead to an increase in prices. And yet, the common in open economies is the exchange rate puzzle, which is a finding that an increase in interest rate is associated with depreciation of the local currency.

In contemporary studies, researchers have decided to use a convenient way of eradicating these puzzles. Most of them now follow the framework set by Lucas (1972) who recommended for the incorporation of rational expectations in the studies of the effects of monetary policy. Some recent papers that follow this approach are: Brument and Dincer (2008) and Zhang (2009). In our present study, all the monetary aggregates that constitute the three puzzles, money supply, interest rate, inflation rate and exchange rate are both incorporated into a dynamic VECM to examine in totality, the real effects of monetary policy on economic growth in Nigeria.

Folawewo and Osinubi (2006) investigated how monetary policy objectives of controlling inflation rate and intervention in financing of fiscal deficits affect the variability of inflation and exchange rate in Nigeria. Rational expectation that incorporates fiscal role of exchange rate was the basis of analysis. The result shows that inflation affects volatility of its own rate as well as the rate of real exchange. The study recommended for a clear and well articulated monetary policy devoid of ambiguity for easy implementation.

Chuku (2009) investigated the effects of monetary policy innovations in Nigeria using structural vector auto-regression model. He found evidence that monetary policy innovation in Nigeria positively affected the growth of output. He further concluded that the manipulation of the quantity of money supply in Nigeria is the most important and useful monetary instrument. The recommendation made was for the central bank to place more emphasis on the use of quantity-based nominal anchor rather than price-based nominal anchors.

Abata, Kehinde and Bolarinwa (2012) assess how fiscal and monetary policies influence economic growth and development in Nigeria using multiple regression equation and time series data from 1986 to 2000. The research reveals that there exist a mild long run equilibrium

relationship between economic growth and fiscal policy variables in Nigeria. The paper suggested for any meaningful progress towards fiscal prudence on the part of government to help reduce the current fiscal rascality. Again, this paper has a different focus with the present research.

The work of Baghebo and Ebibai (2014) examined the impact of monetary policy on economic growth in Nigeria using time series data from 1980 to 2011 using OLS regression analysis. The result shows a positive influence of monetary policy variables on economic growth during the period of analysis. The authors suggested for the promotion of a most friendly investment environment in Nigeria to sustain increased in GDP growth rate. This work is quite good and current but can still be criticized for using an OLS for such volatile and dynamic variables like money supply and exchange rate.

3. Research Method

The study used only secondary data generated from 2014 CBN bulletin. The primary model showing the technical relationship between monetary policy proxied by narrow money supply (M1) and broad money supply (M2) and real gross domestic product (RGDP) as a proxy for economic growth in Nigeria was specified thus:

$$RGDP = F(NMS + BMS) \text{ -----(1)}$$

Equation (3.1) was easily expanded to cover other monetary related variables affecting economic growth in Nigeria as follows:

$$RGDP = F(NMS + BMS + EXR + CPI + INTR) \text{ -----(2)}$$

The non stochastic implicit model is therefore explicitly specified to cover the stochastic random element as follows:

$$RGDP = b_0 + b_1NMS + b_2BMS + b_3EXR + b_4CPI + b_5INTR + U \text{ -----(3)}$$

Where; b_0 = Intercept or gradient; b_1 - b_5 = Parameter coefficients to be estimated; RGDP = Real Gross Domestic Product; NMS=Narrow Money Supply; BMS=Broad Money Supply; EXR = Exchange Rate; CPI = Consumer Price Index as a proxy for inflation rate; INTR = Interest Rate. On *a priori* theoretical expectation, it was expected that all the independent variables except EXR and INTR would positively related the dependent variable in the model (RGDP).

4.1. ADF Unit Root Test

Table1 ADF Unit Root Test at Levels

Variables	ADF values at levels	Mackinnon values 5%	Order of integration
RGDP	3.24958	-2.971853	1(0)
NMS	6.135051	-2.963972	1(0)
BMS	1.410334	-2.960411	Not stationary
EXR	-0.058181	-2.951125	Not stationary
CPI	-3.922500	-2.954021	1(0)
INTR	-4.134094	-2.951125	1(0)

Source: EvIEWS 8.0 Output, 2021

The Mackinnon values give the critical values for the determination of stationarity and order of integration as well. The absolute value of the Mackinnon and the ADF test statistics are compared and decisions to accept or reject the in-built hypothesis in the ADF are taken. The result of Table 1 above shows four of the variables – RGDP, NMS, CPI and INTR to be stationary at levels. BMS and EXR were not stationary at levels. This means that the two variables have violated the stochastic assumptions of the OLS.

Table 2 ADF Unit Root Test at First Difference

Variables	ADF values at levels	Mackinnon values 5%	Order of integration
RGDP	6.538205	-2.971853	1(1)
NMS	7.062699	-2.986225	1(1)
BMS	-6.449779	-2.957110	1(1)
EXR	-6.716486	-2.954021	1(1)
CPI	-5.661661	-2.960411	1(1)
INTR	-7.610889	-2.957110	1(1)

Source: EvIEWS 8.0 Output, 2021

The ADF test at first difference is presented in Table 2 above. The results show all the variables – RGDP, NMS, BMS, CPI, EXR and INTR to be stationary at first difference. No variable has violated the stochastic assumptions of the OLS at this level. Thus, we employ the Johansen cointegration to investigate for both the short and long run cointegration of the series.

The Johansen cointegration test displayed in Table 3 below shows that, both the trace test the maximum eigenvalues both have unanimously agreed to produce two cointegrating equations at 5% confidence level. In this event of no disagreement between trace and maximum eigenvalue, we reject the null hypothesis and accept the alternative hypothesis of many cointegrating equations.

Johansen Cointegration Test

Table 3 Johansen Cointegration Result

Series: RGDP NMS BMS EXR CPI INTR

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob. **
None *	0.788469	131.5282	95.75366	0.0000
At most 1 *	0.717011	80.26652	69.81889	0.0058
At most 2	0.474128	38.60900	47.85613	0.2761
At most 3	0.302502	17.40000	29.79707	0.6104
At most 4	0.143273	5.511544	15.49471	0.7523
At most 5	0.012304	0.408562	3.841466	0.5227

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob. **
None *	0.788469	51.26164	40.07757	0.0019
At most 1 *	0.717011	41.65751	33.87687	0.0048
At most 2	0.474128	21.20901	27.58434	0.2638
At most 3	0.302502	11.88845	21.13162	0.5587
At most 4	0.143273	5.102982	14.26460	0.7288
At most 5	0.012304	0.408562	3.841466	0.5227

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Source: Eviews 8.0 Output, 2021

Vector Error Correction

The VECM long run effect shows a long run positive relationship between NMS and BMS and RGDP in Nigeria. There is however, a negative relationship between EXR, CPI and INTR and GDP in Nigeria in the long run. The implication is simple; the current rate of exchange, price level and the cost of borrowing are too high for a comfortable growth of the Nigerian economy

Table 4 VECM Long Run Effects

Vector Error Correction Estimates
Standard errors in () & t-statistics in []

Cointegrating Eq:	CointEq1
RGDP(-1)	1.000000
NMS(-1)	49926.70 (66029.2) [0.75613]
BMS(-1)	4282.507 (378.838) [11.3043]
EXR(-1)	-114339.7 (28790.4) [-3.97145]
CPI(-1)	-377686.2 (71398.1) [-5.28986]
INTR(-1)	-469.6843 (96517.6) [- 0.00487]
C	19595852

Source: EvIEWS 8.0 Output, 2021

The ECM value of -0.428172 carries the correct sign and indicate a speed of adjustment to a unique equilibrium after a policy shock of 42.8%. The model has a high speed of adjustment. The VECM short run effect also shows a short run positive relationship between both the NMS and BMS and GDP in Nigeria. There is again, a negative relationship between EXR, CPI and INTR and RGDP in Nigeria in the short run. The R² and adjusted R² are all positive with 75% and 67% respectively. This indicates that the model has a good fit with 75% of the variations in the dependent variable explained by the explanatory variables in the model. The remaining 25% is left for the stochastic error term

.Table 5 VECM Short Run Effects

Error Correction:	D(RGDP)
CointEq1	-0.428172 (0.15350) [-2.78931]
D(NMS(-1))	71164.71 (63259.3) [1.12497]
D(BMS(-1))	2547.158 (2866.94) [0.88846]
D(EXR(-1))	-92723.18 (90097.8) [-1.02914]
D(CPI(-1))	-53747.48 (65384.7) [-0.82202]
D(INTR(-1))	-12837.19 (69099.3) [-0.18578]
C	4025455. (1875641) [2.14618]
R-squared	0.754085
Adj. R-squared	0.673229
Sum sq. resids	1.16E+15
S.E. equation	6819490.
F-statistic	1.957825
Log likelihood	-561.5088
Akaike AIC	34.51568
Schwarz SC	34.87847
Mean dependent	2660950.
S.D. dependent	7499964.

Source: Eviews 8.0 Output, 2021

The Pairwise granger causality test shows a bi-directional causation running between GRE and GDP. No causation running from GCE to GDP and a uni-directional causation running from both NMS and BMS to RGDP in Nigeria. The result shows no causation between EXR, CPI and INTR to economic growth in Nigeria.

Pairwise Granger Causality Tests

Table 4.6 Pairwise Granger Causality Test

Pairwise Granger Causality Tests

Date: 06/28/16 Time: 11:41

Sample: 1980 2014

Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
NMS does not Granger Cause RGDP	33	0.55509	0.0502
RGDP does not Granger Cause NMS		1.28283	0.0230
BMS does not Granger Cause RGDP	33	2.26997	0.0220
RGDP does not Granger Cause BMS		8.47171	0.0013
EXR does not Granger Cause RGDP	33	1.04746	0.3642
RGDP does not Granger Cause EXR		0.33914	0.7153
CPI does not Granger Cause RGDP	33	0.09839	0.9066
RGDP does not Granger Cause CPI		0.85977	0.4341
INTR does not Granger Cause RGDP	33	0.38505	0.6840
RGDP does not Granger Cause INTR		2.39746	0.1094

Source: EvIEWS 8.0 Output, 2021

5. Conclusion

There is a persistent variation in the value of exchange rate, price level and interest rate in Nigeria lately, monetary efforts in terms of policy by the authority should be put in place to curtail the inverse effect of the growth in these monetary variables in the country.

Money is like a fluid lubricating the smooth operation of an economy. However, the quantity in circulation should be regulated to avoid hyperinflation and other unpredictable monetary consequences.

Monetary policy operations in the country should be operated with great transparency and accountability considering that, they have a direct link to economic growth and development of Nigeria.

Economic growth and development is not only a function of monetary policy but also fiscal policy as well. There is therefore need for appropriate monetary and fiscal policy mix for a more stabilized macroeconomic atmosphere in Nigeria.

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Relationship between Commercial Banks Credit and Per capita net state domestic product of India: A Regional Panel data analysis

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Abstract

In general, bank credit plays a pivotal role in economic growth. Because bank credit may stimulate the capital accumulation and rate of saving that further induce the economic growth. However there are no unanimous opinion on the relationship between bank credit and economic growth. Under these circumstances, an attempt has been taken in this paper to investigate the role of bank credit, capital outlay and government's social sector spending on per capita net state domestic product of India . this study finds that random effect model is better than fixed effect model and expansion of bank credit significantly affecting the per capita net state domestic product, capital outlay also positively and significantly affecting the per capita net state domestic product.

Key Words: Bank credit, Per capita net state domestic product, capital outlay, social sector spending, Panel regression,

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1. Introduction

Generally by the term bank credit we mean aggregate amount of credit or funds provided by commercial banks to individuals , business organisations, industries and government. Individuals use bank credit both for consumption and investment purposes, entrepreneurs borrow loans to invest in plant and machinery and in working capital purposes (Timsima, 2014). Thus we can say that bank credit finances production, consumption and capital formation. Government also borrows to finance in fulfil the various developmental and non developmental plans . The main objectives of all these initiatives is to increase income, production, employment and ultimately economic growth. This relationship between bank credit and economic growth has been an extensive subject of empirical research in both developing and under developing countries since the development of Schumpeter's theory of innovation in 1911 (Mohanty & Patyra ,2016). Schumpeter in 1991 confirmed that the services provided by financial institutions could stimulate technological innovation and economic growth by funding productive investment (Batarseh & Ananzeh2015). Thus the relationship between financial developments and economic growth of any nation is not a new

issue. Generally bank credit plays a vital role by providing necessary financial resources to finance various economic activities.

There are various group of researchers regarding the impact of bank credit on economic growth. One group supports that bank credit is essential for promoting economic growth and another group think that it is the economic growth that raises bank credit to the economy for further growth. A third group of found that there exist bidirectional causal relation between these two variables. Bayoumi and Melander (2008) found that GDP decreased by 1.5% when the overall credit decreased by 2.5%, Demetriades and Hussein in 1996 already found such relationship in their study they opined that financing is a major factor in economic growth. Those we supports the hypothesis that is bank credit stimulates economic growth they put forward the logic that is bank finance could enhance the economic growth by increasing saving, improving the efficiency of allocation fund, and promoting capital formation. Robinson(1952), Gurly & Shaw(1967), Goldsmith(1969), king & Levine (1993) are the supporters of this hypothesis. Eatnaz Fuller and Malik(2009) also found that domestic bank credit to the private sector lead to increase output per worker which ultimately increases economic growth. In the same year that is 2009, Arora, found though banking reforms in India improves the efficiency of the banks but it also leads to decline of credit to the less developed states & region. In the literature there is plethora of other studies which aims mainly to investigate the causal relationship between financial development reflected by expansion of bank credit and economic growth. For example King and Levine(1993) , Gregorio and Guidotti (1995), Rajan and Zingales (1998), Das and Maity (1998), Levine etal (2000), Hassan et al (2011), Christopoulous and Tsionas (2004), Pradhan(2010) Banerjee (2012), Mohanty, Kumar & Patra, (2016) etc who support the hypothesis that financial development leads to higher economic growth. On the other hand Chakraborty(2010), Pradhan(2010), Hassan etal(2011), Herwadkar and Ghosh (2013) support the hypothesis that economic growth causes an expansion of Bank credit. In addition there are some other studies by Demetriades and Hussein (1996), Blackburn and Hung(1998), Yousif (2002), Pradhan(2011) found that bidirectional causality exist between financial development through expansion of bank credit and economic growth.

Increase of bank credit creates demand for goods and services which ultimately stimulates employment and raise income that lead to fuels economic growth. Hence it is expected that credit positively affects economic growth. Similarly government's spending also plays an important role in the economic development of a country. If government spends to fulfil various developmental programme for example social sector spending it is expected that it would increase economic growth since in the theory of national income identity we know government's spending play an important role for raising income.

These diverse views generate curiosity about this relationship among the researchers. However there are no unanimous opinion on the relationship between bank credit and economic growth. Under these circumstances, an attempt has been taken in this paper to investigate the role of bank credit, capital outlay and government's social sector spending on per capita net state domestic product of India

2. Research Method

3.1. Variables data

The variables used in this study are per capita net state domestic product- state wise (at constant prices), state wise credit to agriculture, state wise credit to industry by scheduled commercial banks in India and their summation is taken as state wise total credit by scheduled commercial banks, state wise capital outlay, state wise social sector expenditure . Credit to agriculture is bifurcated into two categories, direct finance & indirect finance. The total credit to agriculture is calculated across rural, semi urban , urban and metropolitan centres of the states over time. Similarly credit to industry has many sub categories which is calculated across rural semi urban and metropolitan centres of the states over time (source: Statistical hand book, RBI). The variables are converted into logarithmic form and their acronyms used in this study are shown in the table below.

Table 1 Variables and their acronyms

Variables	acronyms
per capita net state domestic product- state wise (at constant prices),	lpcnsdp
state wise credit to agriculture by scheduled commercial banks	lagcredit
state wise credit to industry by scheduled commercial banks	linduscredit
State wise total credit by scheduled commercial banks	ltotcredit
state wise capital outlay	lcapioutlay
state wise social sector expenditure	lssspend

All the states and union territories are classified under certain regions as defined by RBI. These regions are Northern region, North Eastern region, Eastern region, Central region, Western region, and Southern region. All the data are taken from Handbook of statistics on Indian States, published by RBI, 2017-18. The data are yearly in nature and it covers the time period from 1997-98 to 2017-18. The classifications of regions are shown in the table below.

Table 2 Classification of regions

Regions	States/ Union Territories
Northern Region	Haryana, HP, j& K, Punjab, Rajasthan, Chandigarh, Delhi
North Eastern	Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura
Eastern Region	Bihar, Jharkhand, Odisha, Sikkim, West Bengal, Andaman & Nicobar Islands
Central Region	Chhattisgarh, Madhya Pradesh, Uttarpradesh, Uttarakhand
Western Region	Goa, Gujarat, Maharashtra, Dadra & Nagar Haveli, Daman & Diu
Southern Region	Andhra Pradesh, Karnataka, Kerala, Tamil Nadu, Lakshadweep, Puducherry, Telengana

Panel data are also known as longitudinal or cross-sectional time series data. Through this data set we can observe the behaviours of entities across time. Entities may be individuals, firms, industries, states, countries etc. the main objective of using panel data in economic research is controlling for variables that cannot be observed or measured across entities, or variables that change over time but not across entities. Panel Data regression models are used in this study. A panel data regression may be written as follows.

$$y_{it} = \alpha_i + \beta_k x_{k,it} + \mu_{it} \text{-----} (1)$$

where i is the cross section units (in this study Nations, 1 to 15) and t is the time series units (in this study year 2000 to 2019).

y_{it} is the dependent variable, x'_{it} represents i th independent and control variables. β_k is the coefficient for respective independent and control variables. μ_{it} is the error term.

The individual effects may be either assumed to be correlated with the right hand side variables (fixed effects model: FEM) or be incorporated into the error term (random effects model: REM) and assumed uncorrelated with the explanatory variables (Baum, 2001). Fixed effect model analyses the impact of variables that vary over time. Generally it is assumed that something within each cross sectional unit may impact or bias the independent variables and we need to control for this. Moreover the time –invariant characteristics are unique to the individual and should not be correlated with other individual characteristics. When working with panel data models the first step is to test whether the data series can be estimated through a panel data model or through a pooled OLS. Therefore, Baltagi (2008) considers that the question is “To pool or not to pool the data?” A simple probability test has the null hypothesis the OLS model and the alternative hypothesis the FE model.

The next step would be to decide whether a FE model or a RE model is more appropriate for the data series. The decision between the two models can be made based on different tests, economic reasons and/or information criteria. Baltagi suggests all of these methods; hence one can estimate both models and choose between them according to the information criteria and/or based on economic arguments. In our study we have used Hausman’s specification test for selecting which model is better Fixed or Random effect model.

For the fixed effects model the most used estimator is called the “within estimator”. It performs OLS on the mean-differenced data. Because all the observations of the mean-difference of a time-invariant variable are zero, using a time-invariant variable is not recommended. Because the fixed effects have been eliminated (through mean-differencing), OLS leads to consistent estimates of the coefficients. A great advantage of panel data is the fact that consistent estimation is possible even with endogenous regressors, provided that x_{it} is correlated only with the time-invariant component of the error, α_i , and not with the time varying component of the error

For the random-effects model, the α_i from (1) is incorporated into the error term and assumed uncorrelated with the explanatory variables. Considering this assumption we have the model (2) as a random effect model specification:

$$y_{it} = x'_{it} * \beta + \varepsilon_{it} \text{-----}(2)$$

Because the α_i is incorporated in ε_{it} in each time period, we might say that we have to deal with autocorrelation of the error. Therefore the general least square method is used for the estimation of a RE model. An advantage of the RE model is that it allows to use explanatory variables that are constant over time; a great disadvantage is that if the FE model would be more appropriate those estimates would be inconsistent.

After controlling for the effects, the default standard errors assume that the error μ_{it} is independent and identically distributed (Cameron, Trivedi, 2009). Also, the model is estimated assuming the homoskedasticity of the residuals. When heteroscedasticity is present the standard errors of the estimates will be biased and one should compute robust standard errors correcting for the possible presence of heteroscedasticity. The most common deviation from homoskedastic errors in the context of panel data is likely to be error variances specific to the cross-sectional unit. When the error process is homoskedastic within cross-sectional units, but its variance differs across units we have the so called group wise heteroscedasticity. Another problem is the serial correlation of the idiosyncratic error term, but Wooldridge proposed a very simple test for checking the autocorrelation of the residuals.

In order to overcome these problems, we should estimate the regression model using robust standard errors. Some authors have provided a number of tests in order to identify the problems encountered (Drukker, 2003, Baum, 2001, Green, 2000). All these techniques are applied in this study.

3. Findings and Discussions

4.1. Findings from graphical plots of the variables

region wise graphical plot of per capita net state domestic product shows that north eastern region has lowest $\ln pcnsdp$ and the highest position takes southern region. This is true for all the three years (1997, 2007, and 2017) shown in the chart. The 2nd position takes the northern region. Central and Western region of India shows more or less similar pattern of per capita net state domestic product. Eastern region takes the last but one position in this context. Chart 2 shows region wise commercial bank's credit in India. This chart also reflects that bank's credit is lowest in North-eastern region. In other regions log of bank's credit are more or less similar volume. Though Southern and Western region show slightly more volume of bank credit obtained compared to other regions of India. Chart 3 and 4 show region wise capital outlay and social sector spending in India respectively. North eastern region takes the lowest place as usual in terms of both the variables. One interest point is that in 1997 central region's position was last compared to other five regions in terms of capital outlay, but it recovers very quickly such that in next successive time periods that is 2007 and 2017, significant differences are not observed through bar diagrammatic expression compared to other regions (except North eastern region) of India.

3.2. Findings from Panel regression analysis:

Table- 3 shows descriptive statistics, which clearly reflects that the highest variation is in the log of industry credit variable, whereas log of capital outlay shows lowest variation. The variation or standard deviation of per capita net state domestic product and agriculture credit is also high among the regions. Though the variation is comparatively low for log of social sector spending variation. Table-4 shows the results of pooled regression, which clearly reflects that the estimated value of total credit and social sector spending is positive and significant. Since the pooled regression does not consider the heterogeneity of the data set among the cross section units, hence we should not rely on pooled regression for panel data analysis. Table 5 shows the results of fixed effect model, which clearly shows all the independent variables are positively and significantly affect per capita net state domestic product. Similar results obtain in case of random effect model shown in table- 6. Table- 7

shows Hausman's specification test results. Hence these results show that random effect model is better than fixed effect model. In case of any heterogeneity exists in the error series of the random effect model, we have re-estimated the random effect model with robust standard error. The estimated results are shown in table 8. Hence from table 8 it is clear that bank credit plays an important role for stimulating per capita net state domestic product. Similarly capital outlay variable is also positively and significantly affecting per capita net state domestic product, however, social sector spending is not significant in this context.

4. Conclusion:

The relationship between bank credit and economic growth is one of the most discussed issues among the academicians and practitioners. In general, bank credit plays a pivotal role in economic growth. Because bank credit may stimulate the capital accumulation and rate of saving that further induce the economic growth (Mohanty & Patyra, 2016.). Despite the growing literatures that examined the relationship between financial developments (through the expansion of bank credit) and growth of any economy, there is scarceness in the empirical studies that examine the influence of bank credit on economic performance or per capita net state domestic product at scrotal level of any country. Therefore this study came to examine the relationship between per capita net state domestic product, and bank credit, capital outlay, social sector spending at different regions of India for the period that span from 1997 to 2017. We have followed the RBI guideline for regional classifications. We have applied fixed effect model and random effect model and also Housman specification test in this study. This study finds that expansion of bank credit significantly affecting the per capita net state domestic product, capital outlay also positively and significantly affecting the per capita net state domestic product.

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Appendix:

Chart 1 Region wise graphical plot of variables (log form) of India

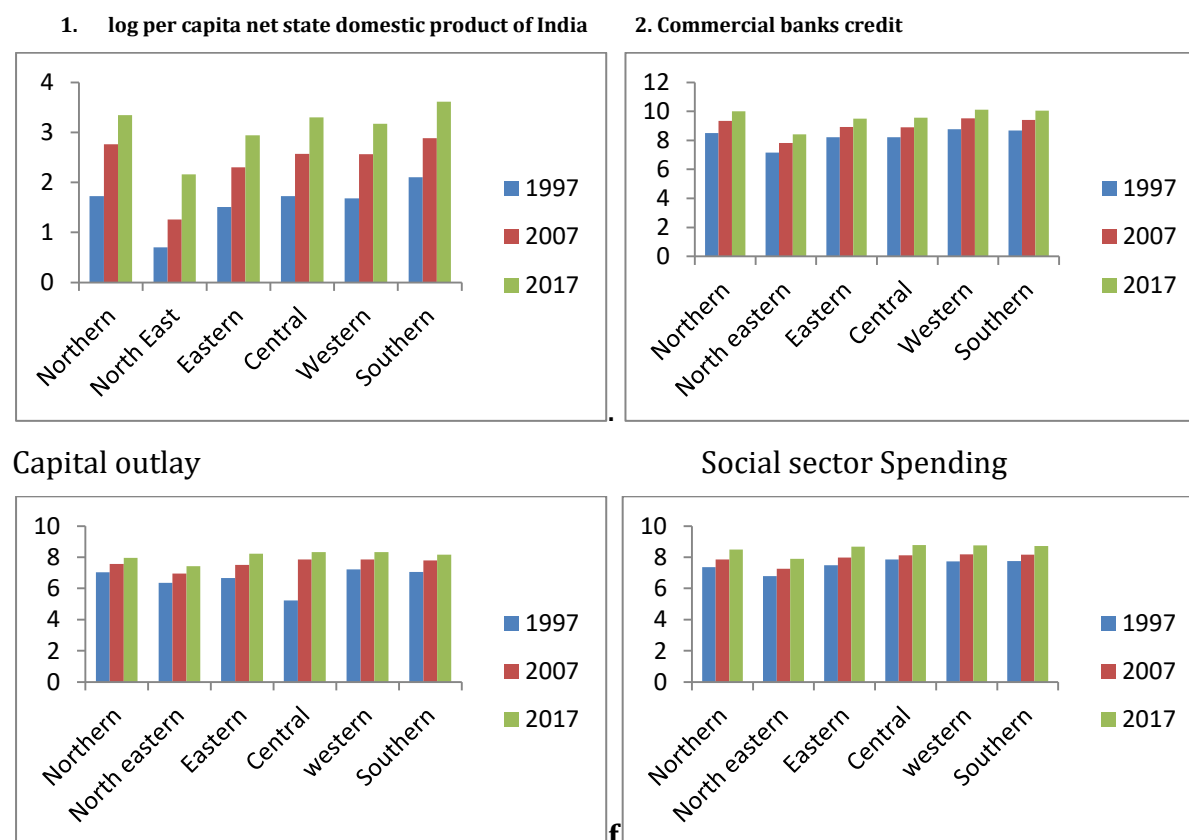


Table- 3 Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
lpcnsdp	126	2.322	.729	.602	3.612
lagcredit	126	8.322	.729	6.602	9.612
linduscredit	126	8.815	.749	6.954	10.049
lssspend	126	7.989	.479	6.784	8.782
lcapioutlay	126	7.377	.72	5.075	8.445
ltotcredit	126	8.955	.735	7.114	10.104

Table-4 results of pooled regression

lpcnsdp	Coef.	St.Err.	t-value	p-value	[95% Conf Interval]	Sig
ltotcredit	.6	.059	10.16	0	.483 .717	***
lcapioutlay	.018	.036	0.51	.61	-.053 .089	
lssspend	.56	.089	6.32	0	.384 .735	***
Constant	-7.657	.313	-24.45	0	-8.277 -7.037	***
Mean dependent var		2.322	SD dependent var		0.729	
R-squared		0.933	Number of obs		126.000	
F-test		563.377	Prob > F		0.000	
Akaike crit. (AIC)		-55.181	Bayesian crit. (BIC)		-43.836	

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

Table -5 Results of Fixed Effect Model

lpcnsdp	Coef.	St.Err.	t-value	p-value	[95% Conf Interval]	Sig
ltotcredit	.89	.062	14.29	0	.767 1.014	***
lcapioutlay	.036	.016	2.20	.03	.004 .068	**
lssspend	.261	.078	3.34	.001	.106 .415	***
Constant	-7.994	.169	-	0	-8.329 -7.66	***
Mean dependent var		2.322	SD dependent var		0.729	
R-squared		0.982	Number of obs		126.000	
F-test		2070.244	Prob > F		0.000	
Akaike crit. (AIC)		-303.030	Bayesian crit. (BIC)		-291.685	

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

Table-6 Results of Random Effect Model

lpcnsdp	Coef.	St.Err.	t-value	p-value	[95% Conf Interval]	Sig
ltotcredit	.877	.061	14.33	0	.757 .996	***
lcapioutlay	.036	.016	2.25	.025	.005 .068	**
lssspend	.276	.077	3.59	0	.125 .426	***
Constant	-7.997	.191	-	0	-8.372 -7.622	***
Mean dependent var		2.322	SD dependent var		0.729	
Overall r-squared		0.926	Number of obs		126.000	
Chi-square		6235.496	Prob > chi2		0.000	
R-squared within		0.982	R-squared between		0.889	

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

Table-7 Hausman (1978) specification test

	Coef.
Chi-square test value	3.026
P-value	.388

Table- 8 Estimation of Random effect model with robust standard error

lpcnsdp	Coef.	St.Err.	t-value	p-value	[95% Conf Interval]	Sig
ltotcredit	.877	.204	4.29	0	.477 1.276	***
lcapioutlay	.036	.014	2.59	.01	.009 .064	***
lssspend	.276	.299	0.92	.357	-.311 .862	
Constant	-7.997	.582	-13.74	0	-9.138 -6.857	***
Mean dependent var		2.322	SD dependent var		0.729	
Overall r-squared		0.926	Number of obs		126.000	
Chi-square		7518.369	Prob > chi2		0.000	
R-squared within		0.982	R-squared between		0.889	

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Use of Force Account Procurement Method for Development of Small and Medium Contracting Firms in Mbeya, Tanzania

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Abstract

The study investigates on the value of using force account procurement method in development of small and medium contracting firms. To explicitly reveal what is behind the scene three objectives were formulated which were:-to examine the features of force account in procurement undertakings; to determine the value behind force account procurement method in procurement process towards development of SME and; to assess the bottleneck over effective enforcement of force account policy. The target population being (30) contractors, engineers and technicians employed with TANROADs, TARURA, TANESCO, and REA and those self-employed (37) in Mbeya. Snow ball sampling technique was used to obtain a total of 67 respondents deduced. The semi-structured interview and checklists schedules being used to gather the facts then descriptively and through the use of simple frequencies and percentage the reality was revealed:- force accounts involves local contractors by 100% executing contracts defined under force account policy to its end. Moreover force account is 100% local community participation procurement regularities; force account increases competence (70%); experience (66%) and financial capacitating (59%) of local contractors. Furthermore it was revealed that though projects assigned under force account are to be executed by indigenous contractors by 100% but from the field area it was found only 50% to be sustained. This gap of >50% of contracts under force account none executed was revealed to be caused by technical deficiency given the wilks' lambda, $\lambda < 0.9$; management incompetence given $\chi^2 < 5.0$ and $\delta^2 > 0.05$; cases over (unethical practices reported >60%; financial difficulties >54.7%; and tax burden >60%).

Keywords: Force Account, Procurement Method, Small and Medium contracting firms, Tanzania

How to Cite:

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1. Introduction

Preferential treatment for the purpose of developing small and medium contracting firms has been a current agenda to most of governments in the World especially in developing countries (Schapper & Gilbert, 2006). Implementation and use of preferential treatment government of host countries has found to be used in developing local experts (BMAU, 2015). Preferential treatment said involves providing a great chance to local contracting firms to win and execute procurement contracts. The opportunities or works to be assigned might be those which involve constructions such as civil engineering, bridges and road renovation and demolition. Indeed the preferential treatment is paid over consultancy services such as teaching; medical treatment care; non-consultancy services such as environmental cleanliness as well as supply of goods. This then help to develop the indigenous contractors technically and managerial wise to execute the contract to the end successfully.

According to Ofori (2000), the strategies of developing local contractors have been the initiative of the government of Indonesia has been undertaking. This is from the fact that by developing indigenous experts is like making own product/service. One of the advantage revealed from this study is that in-sourcing is cheaper than out-sourcing. The same making own experts help to meet on time delivery of the service because of the availability of those internal experts in place and any time when needed. Contextually the study by Ofori (2000) stipulated one of the attribute/variable the study under discussion has jotted down i.e. contribution/value of effective implementation of force account policy. The value that have added by the study underhand is to include other variables such that of factors which lead the force account policy in Tanzania being not implemented to its 100% but <50% level reached.

In the country of Uganda with reference to what was said by UNABCEC (2014) the enforcement of public private partnership as one of the strategy towards developing local contractors for them full participate in execution of procurement undertakings. Indeed for development of rural infrastructures. The study underhand has been innovative by pinpointing more other strategies /methods and policies apart from force account. Other methods/policies revealed by this study under discussion that increases the engagement or participation of local contractors both for procurement works advertised locally (such as those defined under force account) and internationally ones are Build and design, Build Operate Own Transfer, Collaborative procurement and turnkey contract. Apart from empowering local contractors for them compete fairly for international advertized tenders such that through use of International competitive tendering but those methods found to develop local contractors financially, technically and managerially as force account revealed to foster.

The enforcement of force account policy in Tanzania came in following a procurement reforms over the PPA 2004 to PPA 2011 and regulations of 2013. This indeed came following the gap revealed over majority of indigenous contractors to lose most of works procurement opportunities by >60% because of global stiff competition and international harmonization in construction industries. Following a globalization and liberal markets in procurement which allow the contractors from other Worldwide to apply for the tender opportunities come on hand or seen from tender portals/websites/internet sources then competition has become stiff. This is

then is a reason why most of procurement of works opportunities are won by foreign contractors and therefore leaving the indigenous Tanzanians underdeveloped (non-experienced) because of not being engaged in executing complex and high valued projects.

The force account policy as the government of Tanzania aimed at over developing SMEs has less been attained following the challenges facing it. Despite of the Tanzanian government speculating openly that the REA projects are to be executed by local experts but these opportunities have not been much spreaded to most of local contracting firms in which only 45% of these projects are executed. Moreover despite of 100% declaration that TARURA projects are to be run by local contractors but to find that only 55% is fostered.

The 50% in average over procurement opportunities executed by local contractors under deployment of force account is not enough to say the policy has employed effectively towards development of small and medium contracting firms. Some of pitfalls revealed from the field why force account policy is not much extended in Tanzania were :-i) incompetence or technical and managerial incapability ii) ethical deficiency (most of local contractors were found not trustful, not faithful, lazy, they do corrupt and not honest) iii) financial difficulties iv) tax burden

This study was guided by the **Contractor Performance Development Model (CDM)**. This model was found by Dlungwana & Rwelamila (2015). This Model suggested that for a local contractor to be able to perform a contract to completion then technically and managerial wise should be capable. Thus developing a small and medium contractor should associate training, mentorship and performance assessment activities. Moreover for these attributes to be attained then partnering is to be emphasized. Furthermore development of local contractors should call for separate industrial entity with its distinctive strategies. Indeed the Model propose on the significance of undertaking research to reveal the actual need of the market to be in a position to deliver the service which is of the preference and meet the need of client or market.

Despite of the contribution made by CDM but some important issues were left which then have been addressed by the study underhand. Those issues accommodated under force account procurement strategy were financial capacitating and importance of executing/demonstrating codes of conduct in the whole project management cycle. These then are pre-requisites for a local contractor to be trusted and awarded a contract to perform even for those projects which are defined under the force account. By being given a chance to execute the contract is the strategy that help to develop local contractors technically, experienced wise and managerially.

2. Research Method

The study applied a mixed research approach though qualitative elements overspread the quantitative elements. Moreover the grounded theory research design was indempedeted. The study was carried out in Mbeya. Mbeya is one of the region the projects defined under force account such City and Rural roads infrastructures require to be executed by local experts by 100% but to observe it is only <50% level of these works are executed. This then created a dilemma that forced a researcher to conduct a research in this specific area though the casual of the gap and what is to be done to fulfill this gap is to be used as model by other parts of Tanzania and World in general. Moreover the descriptive-survey research design was employed. The

target population being (30) local contractors employed with TANROADs, TARURA, TANESCO and REA and (37) self employed to derive to 67 respondents the facts over the study under hand were revealed. By applying the confidence level of 90% and standard error of estimate =0.1 in deriving to 96 sample of respondents the formula $n=pq(Z\alpha/2/E)^2$ was employed, where p =probability value = 0.5, $p=1-p$, $Z\alpha/2$ =normal probability distribution at a 2-tail =1.65 and E =maximum/standard error estimate= 0.1

The facts from 67 sample frame were obtained by using semi-structured interview, checklists as well as observation. Secondly the reality about the study under hand was obtained by reading books, reviewing Journal articles and watching TV. The collected and edited data were analyzed descriptively by employing mean ($\bar{X}$) and standard deviations (δ^2). Moreover the simple frequency distribution tables, bar and column graphs were used for presentations of the facts.

3. Results & Discussions

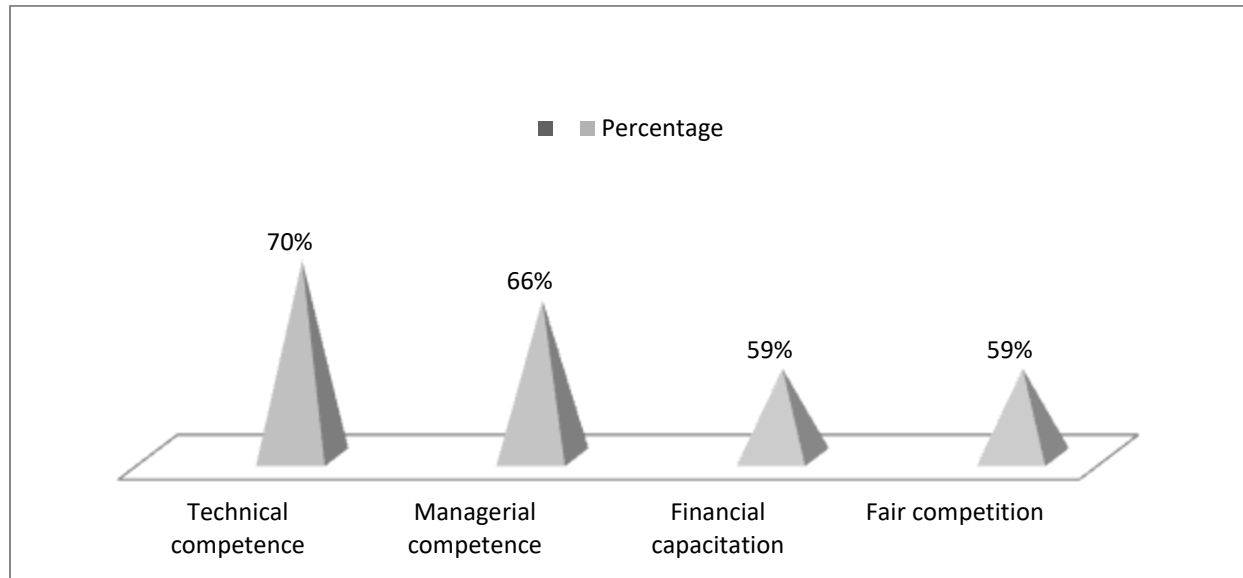
3.1 Contributions of Force account in development of Small and Medium contracting firms

Force account policy came following reforms in public procurement Act 2004 to PPA 2011 section 59 which required use of local experts in executing some of procurement works defined under force account. This was purposely executed following the inventions over global harmonization in procurement undertakings which later led into stiff competition. These international platforms limited chances of local contractors fairly compete and win the procurement opportunities because of financially being incapable and more other perquisites happened not to be met (*See Table 1 below*). This discrepancy was also reported by Kaula (2017) in his study “why most of procurement opportunities in Tanzania are won by foreign contractors?” in which it was revealed that it is by 100% (of 5%) equated to >60% of these complex and risky projects are won by foreign contractors though by 95% these chances were left for local contractors with professional classes I - III .

Procurement reforms the government of Tanzania through the PPD and PPRA have been undertaking has helped local contractors getting chances of executing contracts defined under force account procurement method though not by hundred percent (See figure 2 below). This is then the area of weakness this study has addressed to observe the projects under force account policy are executed 100% by local contractors.

The motives of force account policy though not sustained by hundred percent certain (little chances shown in figure 3 below over the level of force account executed entails). This was indeed proved that despite of small and medium contracting firms being aware of the procurement opportunities through different reliable sources as shown in figure 4 but the results shows that discrepancy still exist in executing the force account policy to 100%. Either the facts over the motives of force account expected to be achieved were shown in Figure 1 below:-

Figure 1: The roles of Force account in development of Small and Medium Contracting Firms



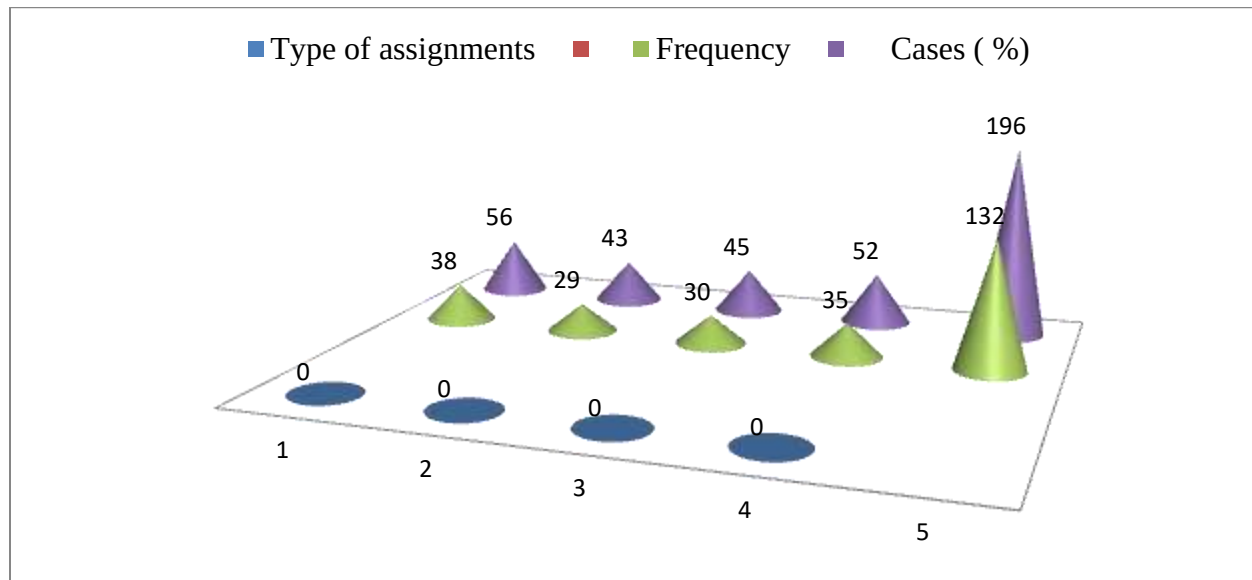
Source: Field data (2019)

The force account procurement policy found to equip small and medium contracting firms technically by 67%, managerially (66%), financial empowerment (59%) and fair competition horizontal equity by 34%. The fair competition also applies even if a contract is not under the category of force account say a National competitive tendering or/and international competitive tendering method. This fair competition was found to be influenced by financial capability small and medium contracting firms acquired what was also proposed by Nasser (2011) in the study “Improving Bidders Competitiveness Strategies in construction industry Projects”. Actually this is the typical motive over the reforms and deployment of force account though these innovations have not yet been propounded following the revealed challenges as shown in (Tables 1, 2, 3; Figures 5, 6, 7 and 8). This discrepancy over insignificant level of value reached by implementing force account from the research area was moreover shown in Figure 2 below.

3.2 The level of Value reached by implementing Force account

Force account as it has stated above aimed at involving local procuring entities in procurement undertakings. Force account motivated at developing or making own experts which then discourage outsourcing for non-core activities to be executed. This came following the fact that making is cheaper than buying. It is by creating own experts of which reliability and accessibility of the service is there fostered any time when need follow due (Hernes, 1988). In different procurement undertakings where procurement of works entails the level of development reached by small and medium contracting firms are those under construction of public infrastructures. More information from the field area was shown below in Figure 2 below:-

Figure 2: Value reached by executing Force Account



Source: Field data (2019)

The public infrastructures being health centers, schools, safe and sewerage infrastructures, electrical infrastructures the level of value attained by executing force account were case responses =60%; supply of goods cases =43% ; executing consultancy services such as teaching =52% and Non consultancy services such as sweeping, gardening and environmental cleanliness = 45% cases

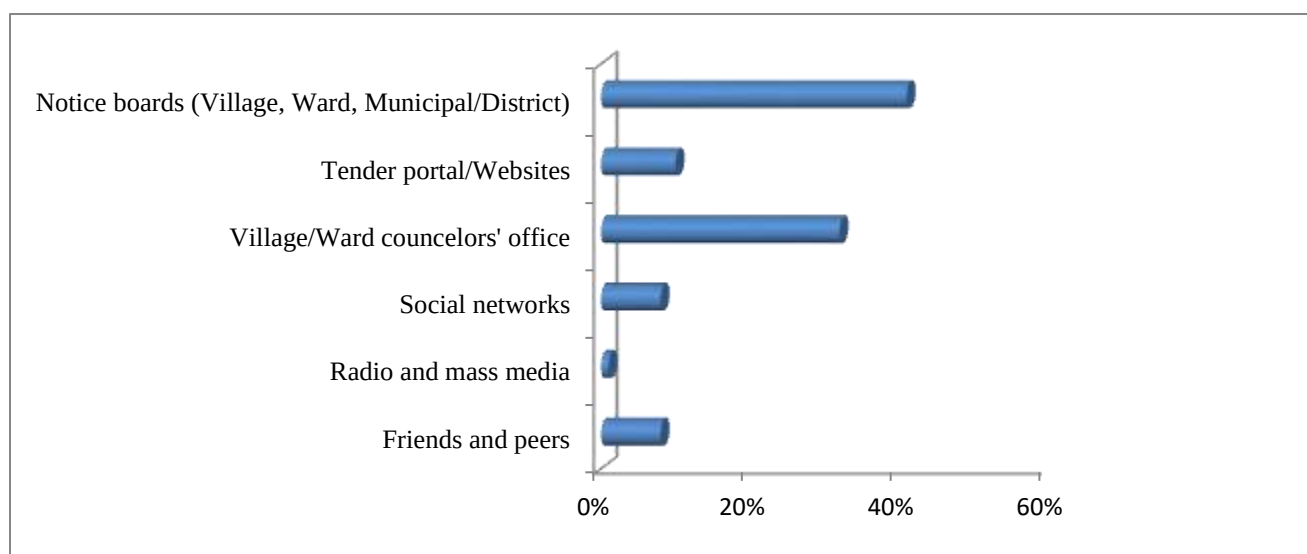
This is then a message to the local contractors and policy makers that the force account is not full exhausted .This then gives a paved way of restructuring the system so that the value reaches 100%.This is to say for efficient exhaustment (by hundred percent) of force account policy the SMEs need to act ethically and competently. Indeed there should be ways of empowering them financially and managerially such that over use of collaborative procurement and frequently running of structural training programs. The results in figure 4 above are contrarily from what was reported by Valdovinos & Lorick (2013) on the importance of using in-house/local experts in execution of the procurement works. It is with this then it was revealed that using in-house experts is cost effective as compared to use of external persons in execution of procurement contracts.

3.3 Awareness over procurement opportunities

Information symmetric is vital aspect for someone become aware of the opportunity to execute in (Karriri,2011).From the research area information over the procurement opportunities executed under force account found to be not a problem. It was moreover revealed to be facilitated by stacking the tender opportunities on the Notice Board or offices of village, Ward Executive

officials and Municipals = 41%. This therefore indicate that information asymmetric was not a gap for local contractors apply for the chances, win and executes the projects defined under force account fully by hundred percent. Only to remind the small and medium contracting firms is that they should not be waiting for opportunities to be disclosed by procurement officials first but they should struggle seeking for those procurement opportunities on their own. Another reliable source of information over the procurement opportunities revealed from the field was the 32% for the Village/Ward Executive Directors and Councilors. More other sources of credible information found from the field were tender portal or websites of Ministries, TARURA, REA= 10%; friends and peer =8%; social networks such as what sap, Jamii-forum =8% and radio and other mass media =1% .These are the sources what these SM contracting firms have to use in searching information of their need what was revealed from the field. Sustainability over access to information pertaining procurement opportunities is contrarily from what was suggested by Kajwangya (2008) on reviewing the areas of improvement in procurement. In the other hand the study was significant to inform the stakeholders that technological inventions in tendering process such that over employment of **e-procurement** is a vital juncture to be adopted and applied.

Figure 3: Awareness of procurement opportunities to be executed under Force account



Source: Field data (2019)

3.4 Wining rate of tenders under force account

The winning rate of bids that are to be executed using force account procurement method is not impressing in balance of the extent to which these small and medium contracting firms are aware of the procurement opportunities to be executed under this policy. While it was revealed SMEs to be aware of the opportunities by >80%(as indeed shown above in subtitle 3.7) through different sources such as peers, friends, what sap platforms, radio, the TARURA, tender portal,

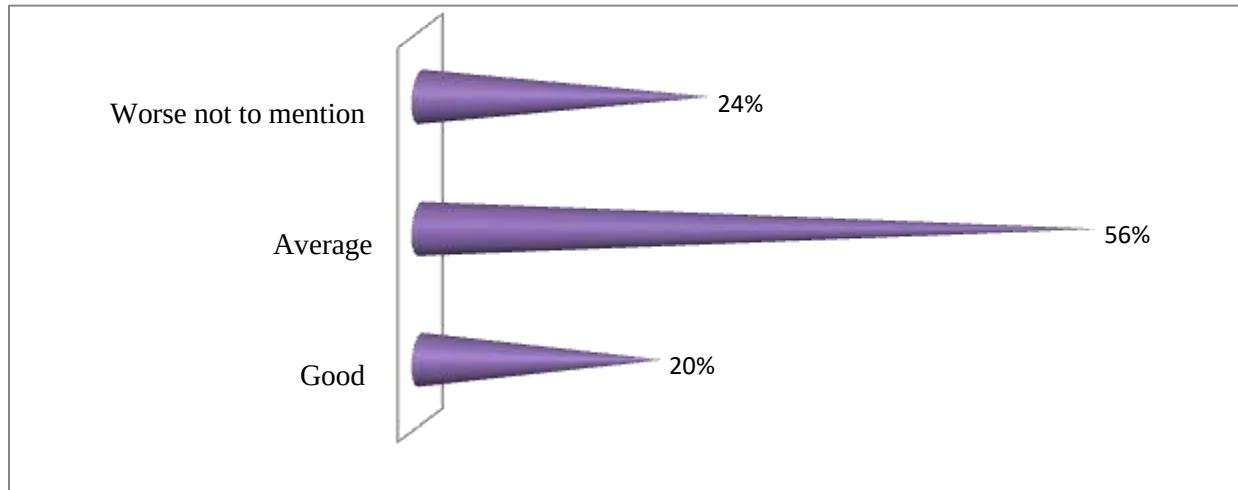
websites, village /ward Executives Notice Board but the chance of winning the tenders defined under force account was found inadequate. It is was with the result of <60% (with a response over good= 20%; average = 56%) as compared to response over worse not to mention = 24% what reveal the deficiency in executing the contracts under force account. Indeed this might be because of most of these SM contracting firms are not formalized for them to be awarded contract to execute but more other dilemma as it has stipulated above are the counting factors. Infact innovation has not been demonstrated to observe the force account is executed 100% by local contractors such as technicians from JKT ('Jeshi la Kujenga Taifa') in Tanzania.

It is from this study therefore it is recommended that to increase the chances of projects being executed by local experts through force account then the government /policy makers should think of initiating home contracting. This means that construction of individual private houses or factory buildings have to follow the same procedures of tendering as it is to other procurement assignments. This then should involve procurement and supplies professionals acting in between the supplier (contractor) and the client. This is from the facts the whole said <60% of contracts executed under force account are the public ones and therefore by executing home contracting then the chances might rise to at least higher levels. Home contracting then has to go with formal way of operation in which every contract to be awarded a contractor to perform and even if a sub-contracting will be done then that contractors/sub H contractors should have registered by respective Boards i.e. CRB, ERB, AQRB and the business / construction firm being licensed and insured. Apart from increasing the chances of executing contracts such that of construction of schools, health centers, water sewerage systems, wiring but also home contracting will help to minimize or eradicate number of cases/ disputes over the project completed while lack the quality ingredients expected by the client or project owner.

3.5 The level of Technical deficiency in executing Force Account Policy

The quality of deliverables is determinant factor over whether the procurement and execution of the contract was performed in accordance to specifications. In the real World there is this concept i.e. Garbage in Garbage out which means that if the input has error do not expect the outcome or output to be good. Specifications are references or compatible technology an organization is running and thus a contractor should adhere to this as these are expectations /targets/standards put forward by the client or project owner.

Figure 4: Wining rate of tenders over the procurement opportunities coming in to be executed under force account



Source: Field data (2019)

Table 1: Technical deficiency in executing Force account

S/N	Sub-constructs	Mean Wilks' Lambda
1	Execution to according to specification	0.67
2	Dimensions and other parameters are adhered	0.57
3	Ability to use technology compatible to organization	0.81
4	Blue prints are adhered	0.74
5	The Bill Of Quantities (BOQ) execution	0.84
6	Drawings are used to as reference over constructions	0.47

Source: Field data (2019)

From Figure 5 above failure to follow the specification is the source of the end deliverable being not of the clients' expectations. Thus with quality dilemma mean wilks' $\lambda = 0.67$ shows most of projects executed by small and medium contracting firms involved in construction of schools, health infrastructures are not confined to the quality standards specified.

Diversion from dimensions specified is the prior source of the project to end while revealed varied from the specifications. Constructions for instance has its specific dimensions such that of length , width, height and thus violations of these parameters equated as mean $\lambda=0.57$.With

this discrepancy a number of cases has been reported and indeed over the public infrastructures , buildings where while a building had to have a specific feet as height from the foundation it was found to diverge from the specification what entails variations over the deliverables.

The building walls which found to form cracks or faults prior to its construction end is the indicator that less materials were used than the quantity specified or budgeted. The problem was revealed rampat with mean wilks' lambda, $\lambda = 0.84$ over a Bill of Quantity (BoQ). This is the fact in which the same was said by the Minister of Education, Science, and Technology (ITV TV reporter, 2019) that the very weak building wall of which just a slight push fell down was found. This was from Shinyanga region over the completed classrooms which were found weak and non-durable. Moreover the variations were revealed over the drawings (mean wilks' $\lambda = 0.47$ and blue prints (mean wilks' $\lambda = 0.74$) to be not executed. This is the reasons on why most of infrastructures built under force account procurement method are reported not to meet the clients' utility.

3.6 The level of Managerial Competence in executing Force Account

Managerial competence implies the extent to which the project runners and managers are able to plan, organize, execute, monitor and evaluate a project. For instance with effective planning the executors of the project stand in a position to identify several types of risks and, areas of exposures and find ways to mitigate them. Un-identified risks are harmful towards performance of the projects (Sunindijo, 2011). More details over the implications of managerial competence towards project performance and the reality over its level of demonstrations has narrated below:-

From Table 2 below for the level of inability to communicate with mean ($\bar{X}$) = 4.00 < 5.00 and standard deviation = $\delta^2 = 0.77 > 0.05$ is a proven indicator that the problem persist even to observe the contract or deliverable which was to be completed in determinable time was not so fostered. It is with poor communication or communication breakdown in which the time when materials have finished say with the phase wise project then small and medium contracting firms were revealed to communicate that need until to the very end when materials are coming to zero. This then revealed to be the major cause of the delay of the project to be completed on time.

Delay in completing the contract as it has stipulated above was also revealed to be caused by managerial deficiency of the executors of the contracts. With mean ($\bar{X}$) = 4.20 < 5.00 and standard deviation (δ^2) = 0.64 > 0.05 is the exactly proof that project delay is costing what local contractors need to mitigate. Infact delay of a project to come to an end is costing to experience the cost of project go beyond to the piled amount and therefore distorting the quality of the output.

More resources or materials use than the budgeted amount has great implication over un-optimum inefficient use of organization resources. More facts and the proof was from the results found from the field as it has shown in the Table 2 above of mean ($\bar{X}$) = 4.10 and standard deviations (δ^2) = 0.52. It is with more variations observed from the completed projects with mean ($\bar{X}$) = 4.70 and standard deviation (δ^2) = 0.60 in which some were also found not durable to deplete in just a moment from its completion time with mean ($\bar{X}$) = 3.70 and standard deviation (δ^2) = 0.45.

Furthermore it is a proven fact that for expected deliverable to be achieved then the managerial capability of the contractors is prior requisite to be executed. It is with inability of small and medium enterprises involved in constructions represented by planning deficiency mean ($\bar{X}$) = $4.5 < 5.00$ and standard deviation (δ^2) = $0.37 > 0.05$; organization of resources deficiency with mean ($\bar{X}$) = 4.60 and standard deviation (δ^2) = 0.47 . Moreover the coordination deficiency given the $\bar{X} = 3.72$ and $\delta^2 = 0.45$; inability to monitor and evaluate the project to its performance with $\bar{X} = 4.01/3.50$ and $\delta^2 = 0.21/0.10$ is the indicator that managerial incompetence is part and parcel of operation of most of local contractors. These then are among the reasons why these small and medium contracting firms are not trusted to be given the project to operate (See results in Table 3 below). The facts over most of local contractor to lack experience and managerial competences were also put forward by Amemba *et al.*, (2013) in the study “Challenges Affecting Public Procurement Performance Process in Kenya”

It is with these managerial and technical deficiencies what the Tender Board in procurement framework or Institution has established the structured program called Build and Design (BD) and the TANROADs are also offering BOOT (Build Operate Own Transfer) contract.

Table 2: The level Competence demonstrated by local contractors in executing force account

S/N	Sub constructs	Mean ($\bar{X}$)	Standard deviation (δ^2)
1	Inability to communicate	4.00	0.77
2	Delay in completing the contract	4.20	0.64
3	More resources use than what was budgeted	4.10	0.52
4	Completed project found not durable	3.70	0.45
5	Number of variations revealed over the project completed	4.70	0.60

Source: Field data (2019)

Table 3: Managerial skills and Force account

S/N	Sub constructs	Mean ($\bar{X}$)	Standard deviation (δ^2)
1	Planning	4.50	0.34
2	Resources mobilization	4.60	0.47
3	Coordination	3.72	0.45
4	Monitoring	4.01	0.21
5	Controlling	3.50	0.10

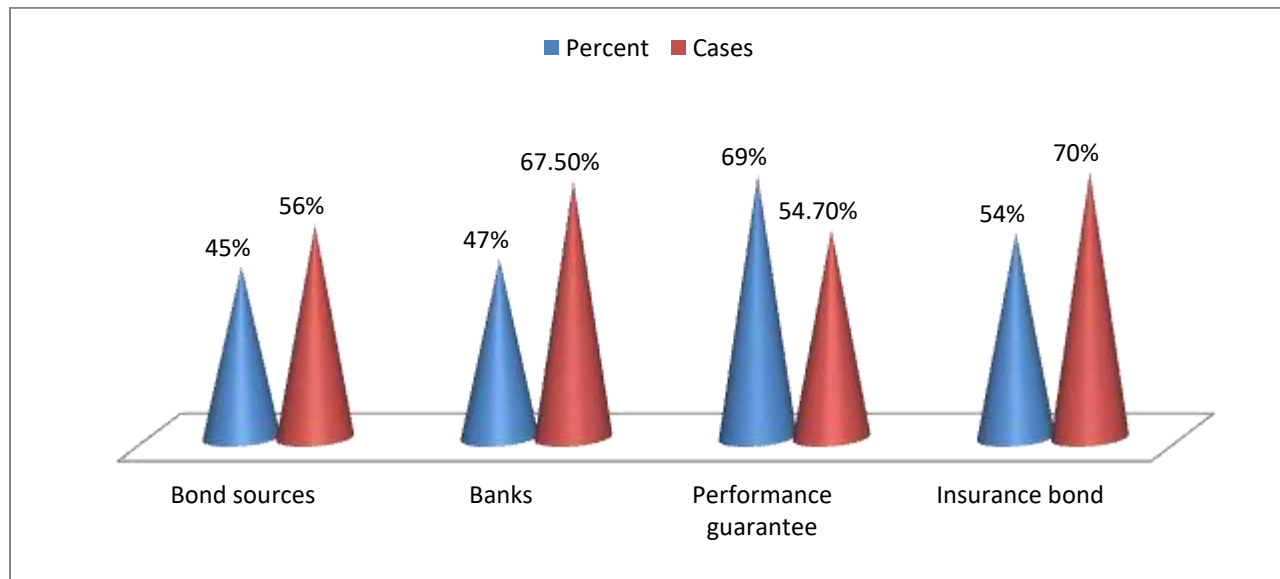
Source: Field data (2019)

3.7 Financial difficulties in implementing Force Account

One of the requirement for a contractor to win a contract to run is the financial capabilities different from other criteria such that of technical and managerial efficiency. It is because most of small and medium contracting firms are running short of finance that is why executing for force accounts' contracts become difficult. Though by 100% local contractors, Engineers,

Architects and Quantity Surveyors are dedicated to operate this force account contracts but only 50% of this policy is executed. Though there can be other reasons for what is behind the scene but financial difficulties are one among those other factors. The small and medium contractors are not made with structured financial systems. Access to bond or start-up capital is a discrepancy = 45 (cases 56%). Banks supporting development of small and medium contracting firms are not accessible adequately by 47 (cases 67.5%); performance bond/guarantee are not provided for about 69 (cases 54.7%) and the insurance bonds are not offered by 54 (cases 70%).

Figure 5: Financial deficit and execution of Force account Policy



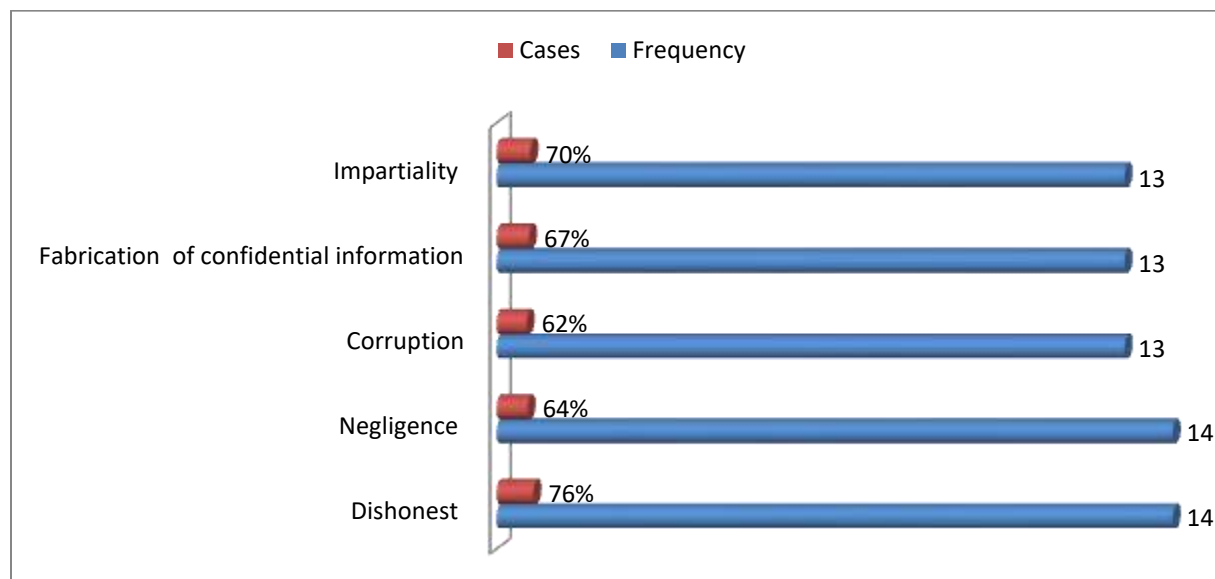
Source: Field data (2019)

3.8 The level of commitment of Malpractices in executing Force Account

Demonstration of good governance is one of the criteria the demand side or procuring entity look at when selecting a potential contractor to execute the contract (Huang, 2011). Good governance implies transparency and ethical way of behaving when executing a contract. This is the reason why the responsive bid to be submitted by a bidder need to associate the 'anti-corruption declaration form'. According to Shengeza (2018) transparency is being committed, answerable and accountable for good or bad over the work to be done. Being anti-corrupted, impartial, confidential and keeping secrete are honest behaviors that need to be shown by the contractors in the whole contract management cycle. But with the dishonest malpractices found from the field regarding reported cases 76% (14) (See Figure 7 below) indicates the extent to which small and medium contracting firms are not honest. This is from the fact that they found to commit defalcation. The materials of constructions sometimes appeared to be misallocated. The dishonest practices were further revealed over the less quantity of materials acquired and being used to than the expected or planned ones. The cases over negligence = 64% (14) prove the fact

that for small and medium contracting firms not trusted in their doing is because of demonstrating laziness and non-due care. What was in the minds of local contractors revealed is the careless and profit making but not on the quality of the services provided.

Figure 7: Commitment of Unethical practices



Source: Field data (2019)

Corruption has become a normal business these small and medium contracting firms have been committing. It is with corruption –dishonest practices demonstrated by SM contracting firms what makes the cases report to come to 62%(13) spreaded (See figure 7 above). While results shown dishonest practices to be part of operations of most of small and medium contracting firms in Tanzania this then run contrarily from what was said Ohashi (2009) on the effects brought by exercising transparency towards getting into Value for Money Procurement in the country of Indonesia. It from the study by Ohashi(2009) in which it was revealed that transparency brought equal chance of winning the contracts advertised by the government of Indonesia thus creating sustainability to procurement undertakings. In Tanzania and indeed to the research area the situation found to be bad to observe the materials and equipments acquired for construction purpose were delivered less than the specified quantity and contrarily from the Value of Money allocated for. In some municipals of Mbeya region school construction materials that cost large was different from the quantity of those materials delivered. With reference to the investigative Auditing conducted in one of the public health centre in Mbalizi municipal it was revealed that the cost of materials incurred (as indicated from Purchase Requisition form) was different from the cost sacrificed for and different from the quantity delivered.

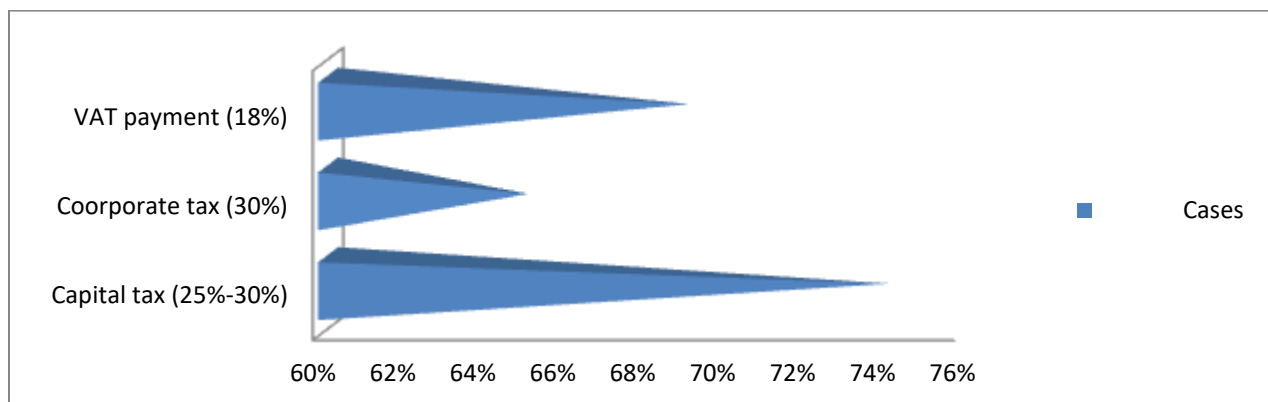
Fabrication of unauthorized information was one of the indicator that dishonest practices are committed =67% cases (13).This therefore a sign that confidentiality and impartiality way doing

was not part of most of small and medium enterprises. This unethical practice was clearly defined or demonstrated and reported by one of the technician from REA agency that electrical installation project which was to be in-acted in a particular village with a specified bill of Quantities was not done but non-specifications committed and the project being shifted to another village which was not in the recent plan. Non-impartiality moreover go together with preferential treatment showed by procuring agents from TARURA to have a preference to particular experts who observed or found to be hired now and then in construction of public infrastructures.

3.9 Regresiveness of tax charged on small and medium contracting firms

Unfair tax system, being regressive in nature say the VAT paid without regarding the youngness of the contracting firm and most of them being paid by referring to the income received and not on profit revealed. The hurt tax (74%) charged on capital inputs discourage investments being a reason why most of small and medium enterprises are not able to start and run business on their own. It is from the same point why other authors are suggesting on SMEs to be capacitated financially and if that is not enough then Banks for Contractors, Engineers and Architects should be established in Tanzania. Unfair VAT 18% equated to 69% and corporate tax for established SME of about 30% equated to 65% (See Figure 8 below) being responses gathered from the field is the proven facts of what was said by one of small contractor that his business has been operating informally while unregistered, non-licensed and non-insured. This was so because of these firms trying to avoid tax from its regressive pinching effect.

Figure 8: The level of unfairness of tax charged



Source: Field data (2019)

The results over dominance of local contracting firms in Tanzania as shown above in figure 8 to be caused by tax rate to be not fair are consistent with what was reported by Shi-Xueyong (2009) though the research areas differentiate these two studies in which while that of Shi-Xueyong (2009) was conducted in Dar Es Salaam this study under discussion was carried out in Mbeya.

4. CONCLUSION

Force account for development of small and medium contracting firms came out after the reforms in procurement of PPA 2004 to PPA 2011. Force account policy aim for good but due to stiff challenges facing the local contractors that is why it is little <60% of the value executed. Moreover despite of the good motive of developing SMEs indeed in construction industry by empowering them technically, financially, managerially competence but from the field it was revealed that little was demonstrated. It was found that insignificant development is because of the i) financial difficulties ii) managerial incompetence and non-experience over the work to be executed iii) malpractices and more other dishonest practices as well as v) tax burden.

To be attained to full exhaustment of force account then the followings are to be taken for action:-

- i) Local contractors have to form joint tenancy that will empower them financially, gain image and trust to be awarded many projects as possible for those ones under force account and those executed under National competitive tendering and International competitive tendering procurement methods.
- ii) Through collaboration then the SMEs are to form SACCOS for them to be empowered financially and gain trust by financial Institutions for them to be learnt money.
- iii) Promotion of structural training programs to be facilitated by National Construction Council (NCC).
- iv) Emphasize is to be put for local contractors to be registered in the professional Boards i.e. the CRB, ERB, AQRB
- v) Use of BOOT i.e. Build Operate Own Transfer
- vi) Use of Tax breakage or incentives to promote development of SME
- vii) Reminding contractors on the importance of acting honestly and observing code of conducts
- viii) Formalization of the firms operated by small and medium contracting firms

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Co-Integration Approach to Analysing The Impact of External Debt Management on Economic Growth of Nigeria

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Abstract:

This study examined the impact of External debt management on economic growth of Nigeria. Using annual time series data collected over the period of 33 years (1986 – 2018). The data for the study were collected from the CBN statistical bulletin annual report. The variables on which data are collected include: Real Gross Domestic Product, External Debt, External Debt service, Balance of Payment and Exchange Rate. Data were analyzed using the Ordinary least squares (OLS) multiple regression analysis. It proceeded with Descriptive statistics; Augmented Dickey Fuller (ADF) unit root test, Co-integration test and Auto-Regressive Distributed Lag (ARDL). The study revealed that impact of external debt management on economic growth of Nigeria over the period under review was statistically significant with external debt, external debt service payment and balance of payment but statistically insignificant with exchange rate. The study recommended that governments should establish and adopt an optimal balance between external debt acquisition and application /allocation of the acquired funds to productive projects for the purpose of making a high output and a steady economic growth. The management should live up to expectation by encouraging efficient commitment of borrowed funds to productive projects so as to comply with debt serving agreement and outright payments, measures such as improving exports should be implemented to ensure that local currencies are stable.

Keywords: External debt, External debt management, External debt service payment, Balance of payment, Exchange rate, Economic growth.

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1. Introduction

It is in the habit of developing countries to borrow fund for developments needs. Nigeria as a developing country source for external fund since domestic fund is insufficient to meets the

needs for economic growth. External debt is simply a part of a country's debt that was loaded from overseas lenders together with commercial banks, Government and international financial institutions. The inability to utilize the debt on productive projects that will yield positive output and to efficiently meet the requirements of servicing the debt is some of the major problems face by Nigeria. External debt appears to be a general occurrence in recent time due to its accumulation, especially for the emerging nations which are at the stage of economic recovery and development where the supply of internal savings are not enough with high current account payment deficit and in-depth need of import of capital to increase domestic resources. The essence of external debt is to enable countries without sufficient internal financial resources source for foreign aid (Noko, 2016).

Nigeria's external debt management is one major macroeconomic problem both to the economic agent particularly at the beginning of the years of her independent (Ogege, and Ekpudu, 2010). In spite of many efforts made to control and reduce debt on Nigeria's economy by the Government over the years. Such include the deliberate application of essential resources towards debt servicing, the renewal of the terms of loans and the alteration of structure to debt conversion programme. One particular interest of the government is on the pressure caused by the country's debt compared in the direction of the nation's money owing overhaul capability (Noko, 2016).

Foreign borrowing can be beneficial in providing the resources necessary to prop up economic increase and development, it has its salient detrimental costs (Uma, Eboh and Obidike, 2013). These costs gradually outweigh the benefits for many developing nations. The major cost connected with the accumulation of a huge external debt is "debt serving". Debt servicing is the payment of cash of the principal and piled up interest. Balance due servicing is a contractually stable exchange on domestic real income and savings as the debt becomes bigger or as interest rate increase. With the purpose of saying, debt servicing requirement can be carried out through export earnings (Kehinde, 2012).

The genesis of external debt of Nigeria was in 1958 as 28 million US dollars was borrowed from the World Bank intended for railway building. Within the interval of 1958 as well as 1977, the call for external debt was not a lot. The decrease in oil prices in 1978 caused a negative influence on the finances of the government. The government had to borrow to be free from the difficulties of balance of payment and to finance some projects. 1 million U.S dollars which was said to be a jumbo loan was the first money borrowed by the government from the global capital market (GCM) but in 1978 it increased to 2.2 million U.S dollars.

From then on the rate of lending increased which leads to external debt contractual requirement by the state government. As stated by Debt Management Office (DMO), Nigeria sustained external debt of ₦17.3 million in 1980. In order to resolve the problem, various external debt-financing options were taken to consideration in the Structural Adjustment Programme (SAP) in 1986. Since the introduction of this programme, Nigerians have been falling into one difficulty after another starting from the devaluation of the country's currency (naira) through Second Tie Foreign Exchange Market (SFEM) now Foreign Exchange Market (FEM) to the increasing prices of inflation goods such as raw materials and agricultural products etc.

Prior to the \$18 million debt termination approved for Nigeria in 2005 by Paris Club, the external money owing of the country was close to \$40 million with over \$30 million of the sum being payable to Paris Club alone. The history of Nigeria's enormous debts can barely be separated from its decades of misrule and the continued irresponsibility of its rulers. In 1971 Nigeria's debt stock amounted to \$1 million. Within 1991, it rose to \$33.4 million, and instead of decreasing, increase has been its state, especially the unquenchable desire of political leaders to acquire loan for carrying out uncertain projects and also with the undefeatable system of debt servicing.

Nigeria was to disburse a huge sum of \$4.9 million each year lying on debt service prior to the debt termination deal (Aluko and Arowolo, 2010). Such indebtedness would have made it impossible to attain exchange rate constancy or a few significant growths in the country. The consequence of the Paris Club debt termination was instantaneously observed in the chronological decrease of the Nigeria's exchange rate in comparison with the US Dollar from 130.6 Naira within 2005 up to 128.2 Naira in 2006, and decreased down to 120.9 in 2007 (CBN, 2009). Even as at that, the economic increase by Nigeria has been contradictory in the period of post-debt relief as it plunged from 6.5% in 2005 to 6% in 2006 and subsequently increased to 6.5% in 2007 (CBN, 2008). It was expected that as the year goes by, the benefits for the termination of debt will manifest. Instead it was cleared up in 2009 via the international financial and economic disaster, which was impulsive in August 2007 by the disintegration of the major lending market in the United States. The consequence of the catastrophe on swap over rate of Nigeria was unusual as the Naira exchange rate in comparison with the US Dollar rose astronomically from about N120/\$ in the last quarter of 2007 to more than N150/\$ (about 25% increase) in the third quarter of 2009 (CBN, 2009). This is attributed to the sudden drop in foreign earnings of Nigeria as a consequence of the constant fall of crude oil price, which plunged from US\$147 per barrel in July 2007 and by December 2008 the price for a barrel was as low as US\$45 (CBN, 2008).

Nigeria's external debt stock was increasing subsequent to the debt termination in 2005; available statistics is an evidence of this. Nigeria's external debt outstanding rose in the year 2006 to the year 2009 with the following figures \$3,545 million, \$3,654 million, \$3,720 million \$3,947 million respectively and so it continues to increase to date. (CBN, 2018). The study therefore empirically ascertained the impact of external debt management on economic growth of Nigeria within the period of 33 years (1986 – 2018).

The Nigeria's sight debt profile despite cancellation of some external debt by London club, have remain worrisome in the minds of researchers and policy makers. Prior studies on the related subject matter appear to have laid more emphasis on positive significant of external debt at the cost of its negative significant on the economic growth of Nigeria. This outcome leads to imbalance in such empirical studies and therefore constitutes a lacuna for the present study.

One of the problems faced by Nigeria in her external debt management is the inability to utilize the debt properly for economic growth. Due to corruption the debt is been converted to unnecessary projects that its output will not be enough to cover the principal payment and the interest. The consequence of this is that Nigeria economy could not get to the height it ought to

reach. This plainly explains that the utilization of loan is what matters. Borrowing to fund government expenses is not bad but what the debt is spent on and the mode of debt serving is the issue of concern.

According to Noko, (2016) debt does not essentially mean a slow growth of an economy; it is a nation's incapability to comply with debt service requirements coupled by insufficient awareness on the whatness and structure of the debt as well as the money the nation is required to pay raise hardship in the economy and woes in the nation.

This is another important call out developing nations are facing, including Nigeria. The incapability of Nigeria as a country to successfully meet up with its debt servicing necessities/payments has exposed the country to a huge responsibility of debt service. The consequences of this debt service responsibility causes further problems for the country, in addition to a rise in the fiscal short fall also which is caused by debt servicing level. This causes a severe risk to the economy as a huge sum of the nation's income has gone to waste. Meanwhile, despite the substantial in literature on the subject matter, earlier studies remained silent on the significant of external debt management on economic growth of Nigeria.

It is on this premise that this study is set to evaluate the impact of external debt management on economic growth of Nigeria within the past 33 years.

2. Literature Review

2.1 Conceptual framework

External debt is defined as that fraction of money owing by a country which was borrowed from other countries lenders such as commercial banks, international financial institutions or government. The necessity of External debt was due to insufficient domestic financial resources of a country to fund public goods that would raise the welfare of the nation and stimulate economic growth (Ademola, Olaleya, and Olusiya 2013). External debts are finances source from outside the nation's resident which is mainly in foreign currency with interest to finance précised project.

Momodu (2012) states that the Asian Tigers- Malaysia, Singapore, Indonesia and Taiwan and South American country, Brazil proved this theory to be significant in their country. These counties were developed through the proper implementation of external debt.

External debt is termed as an undesirable significant on the economic growth and development of a country, for instance at a stage when the debt could not be paid let alone the interest. The debt then became a burden to the country thereby bridging economic growth. Debt servicing reduces funds that a country has for investment purpose.

In debt management the following rules regarding to debt ought to be considered, total debt to local revenue ratio, debt to gross domestic product ratio.

External debt service refers to the maintenance accorded to the borrowed fund so as to keep the repayment agreement fresh in the mind of the borrower (Safadari and Mehrizi, 2011). It is the agreed interest rate paid to the lend In like manner, balance of payments simply means an orderly

record of financial transactions of a nation / economy for a specific era of point in time, typically one year, between residents of a nation and non residents all over the world. These transactions involve goods and services, changes in claims of the liabilities all over the world, the prerequisite and accepting of authentic assets and income. Especially, the records transactions of balance of payments on goods and services as well as income, ownership change as well as added changes in an economy's holdings of Special Drawing and monetary gold's (Obudah, and Tombofa, 2013).

Atique and Malik (2012) opined that some countries with a weak balance of payments position will eventually experience low growth in the economy because of low turnout of local industries; this may be viewed as too costly from a political or social point of view. They stress that an efficient and appropriate administration of balance of payments can be very useful to all developing nations in a way to make sure the contentment of fundamental needs, general resources mobilization and to ensure permanent and equilibrium of payment viability. Amassoma, (2011) observed that nations undergoing problems within balance of payments should strictly boost local production so as to produce for exports and encourage gradual appreciation of her currency to result to a change on the expenditure problems.

2.1.1 Concept of debt

According to Cambridge Academic Content Dictionary, Debt is the amounts of money that is owed by a person, company, country, etc and that is usually have to pay interest on. It is a condition in which an individual or a nation is owing something, especially money that is still to be paid to someone else. Oyejide, Soyede and Kayode (2011) posited that Debt is seen like the resource or cash used in a business / society so as to not contribute via its vendor by means of and does not in any supplementary way fit in to them. Debt is also a liability that is represented by a monetary tool or other recognized equivalent.

Debt, be it internal debt or external debt could be classified into two such as:

Productive debt and

Dead weight debt.

Productive debt: This refers to finance that is gotten to facilitate the country purchase some kind of assets that will be use for economic development. Example is loan obtained for acquiring refineries, electricity, factories, and other valuable assets.

Dead weight debt: This refers to as a loan obtained from foreign countries for war and also expenses on current expenditure. Once a nation obtain a advance from foreign nations, it means that a nation can import from foreign nations goods and services in the direction of the rate of the money that was borrowed, and equally export something of importance in exchange. Once it is time for the repayment of the capital and interest, that same nation has to go through the trouble of exporting of goods and service without getting any kind of imports in exchange. In the case of these two classes of debt mentioned and discussed, the borrowing countries (borrowers) future savings is required to cover the repayment of the capital and the interest as well. Therefore, any investment financed through debt should be very productive and should be managed very well

enough as to yield a very high profit that will be higher than the debt servicing cost (Ajayi and Oke, 2012).

Without regard to danger or safety, Nigeria in her quest to finance economic growth embarks on foreign loans in a rigid condition. Yet all these efforts and requirements taken by Nigeria such as devaluation *inter alia* could not increase the value of productivity Nigeria's ability to pay the loan and resulted to what could be termed as external debt crisis (Umaru, Hamidu and Musa, 2013).

2.1.1.1. external debt

External debt is assumed to be the funds of money employ in a country which is not generated within and does not in any way come from any common people, whether corporate or person (Ogbonna and Appah, 2016). posited external debt is that section of a nation's debt which is gotten from overseas sources such as overseas corporations, government or global financial institutions. Those loans, as well as interest must usually be paid in the currency in which the loan was acquired. External debt is that part of the sum money owing of a country which is due to creditors in another nation.

When home savings is not enough to fund investment, there is call for external debt to link the gap between home savings and investment. Therefore CIA world fact book (2018) posit that External debt gives the whole public and personal debt payable to non-residents repayable in globally conventional currencies, goods or services. The figures are calculated based on the exchange rate basis, i.e., not in purchasing power parity (PPP) form.

2.1.1.2 external debt management

Ogbonna and Appah (2016) posited External debt Management to be gamut of institutional and technical arrangement in organizing the liabilities of a country so that the debt service burden is kept within sustainable level.

The core objective of management of external debt is to make sure that the governments financing desires and its payment obligations are met at the buck probable cost above the intermediate to long run, steady with a careful degree of peril (Guidelines for public debt management).

Bhatia (2008) suggest that external debt management refers to as the establishment of the conditions of issue and emancipation of public securities/foreign loans. It entails the method of administering the external public debt that is provide for the payment of interest and arrange the refinancing of maturing bond/ debt. It involves a cognizant and cautiously planned timetable to the gaining deployment underlying rule or to keep up the balance of payments. It also involves how it is administered to avoid unfavorable economic debt and non government debt is involved.

External debt management comprises of three definite interrelated processes.

Selecting the proper financing

Deciding how much to borrow and

Keeping absolute up – to date records on debt.

2.1.1.3 external debt service payment

World Bank (2013) explained exterior debt service payment as the totting up of most important repayment and interest repayments at the specified year. External debt service payment refers to imbursement in respect of mutually principal and interest. Real debt service is the set of payment s really made to please a debt responsibility, including principal, interest and any late imbursement fees.

Exterior debt service payment comprises of two terms of payments such as:

The long term external debt service payment

The external debt service payment can be in short term,

The lengthy term external debt service payments are debt that has original or external ripeness of more than one year and is payable to non – resident by resident of an economy and repayments in alien currency, goods or service and interest in arrears on long term debt. While the external debt service payment in short term are debt within external ripeness of one year or less.

Nigeria's exterior debt service payment data was reported at 192.440 USD in December 2018. This records a reduce from the prior number of 849.973 USD mn for September 2018. Nigeria's External debt service payment data is streamlined quarterly, averaging 95.286USD mn from March 2008 to December 2018, with 44 comments that data reach an all – time elevated of 849.973 USD mn in September 2018 and a documentation low of 47.998USD mn in June 2016. Nigeria's External debt service payments data relics lively state in CEIC as well as is reported via Debt Management Office Nigeria (2018).

2.1.1.4 economic growth

According Jim Chappelow (2019) Economic growth is said to be a raise in aggregate production in an economy. Frequently, but not necessarily aggregate gains in production correlate by means of increase average marginal productivity. That leads to a raise in income, stimulating consumers to open up their wallets and buy additional, which means a top substance quality of life or standard of livelihood. Economic growth is an addition to in the formation of economic goods and services, compared from one era of time to another. It can be calculated in normal or actual (adjusted for inflation) terms. Traditionally, collective economic growth is calculated in requisites of gross domestic product (GDP) or gross national product (GNP) though alternate metrics are used sometimes

It also refers to an amplify in the standard of living in a nation's population amid persistent growth from simple, low – income economy to an up to date high – income economy. It involves achieving a equilibrium in all sector of the Economy in the procedure of creation of goods and services be it agriculture, finance, manufacturing, health, education, etc (Jhingan ML, 2010).

Prateek Agarwal (2019) explains economic growth like in an economy by an outer shift in its production possibility curve (PPC). Economic growth is calculated by the increase in a country's total output or Real Gross Domestic Product (RGDP) or Gross National Production (DNP). The Gross Domestic Product (GDP) of a country is the totting up value of every final goods and

services created inside a country over an epoch of time. Hence an increase in GDP is the addition to in a county's production.

2.2 Theoretical framework

There are several theories that contribute to the impact of external debt management on economic growth of Nigeria. However, this study is hinged on the dependency theory.

2.2.1. The dependency theory

In the 1770s the developing nations initiated the Dependency theory. This theory is derived on the supposition that income flows from outside boundary (periphery) of poor and not fully developed countries to rich countries thereby enriching the latter at the cost of the former. Dependency theory indicates that the poverty of the countries in the periphery is not because they are not coordinated or fully coordinated into the world system as is often debated by free market economists, but because of how they are coordinated into the system. From this point of view, a general school of thinking is the bourgeoisie scholars. To them, the state of underdevelopment and the steady reliance on countries that are not fully developed relying on developed countries are as an end result of their domestic mishaps. They believe this matter can be expounded by their deficient in of seal integration, dispersal of capital, low altitude of technology, reduced institutional framework, poor headship, dishonesty, mismanagement, etc (Momoh and Hundeyin, 1999). They see the under-development and reliance of the countries of the third world as being within inflicted relatively than outwardly afflicted. To this school of thinking, the alternative way to prevent the crisis is for third world countries to seek overseas support in terms of help, loan, investment etc. and permit free of disruption in the functions of the Multinational Enterprises (MNEs). Owing to the immature nature of most LDCs, they are reliant on the developed countries for almost the whole thing ranging from technology, aid, technical support, to way of life, etc. the reliant position of most small countries has made them open to the products of the Western municipal countries and Breton Woods institutions (Ajayi and Khan, 2011). The dependency theory gives a comprehensive account of the factors liable for the position of the rising countries and their steady and nonstop dependence on external aid for their economic development and development.

2.3 Empirical review

A number of researches have been approved reviewing the impact of external debt on the economy. Akram (2010) in the study of the impact of external debt on economic growth and investment in Pakistan developed a mixed model that clearly blends the function of external debt in the equations of growth. He adopted the Autoregressive distributed lag (ARDL) technique in estimating the model and the analytical result showed that both domestic debt and external debt have a negative impact on per capita GDP and investment, therefore, there is an existence of "Debt overhang effect" which crowds out private investment.

Ogege and Ekpudu (2010) oversee the impact of debt burden on the Nigerian economy with the use of annual time series data from 1970-2007. Ordinary least square (OLS) method was adopted for the regression of data analysis and to test the hypotheses. The result showed a negative

relationship between debt stocks of internal and external; and gross domestic product, meaning that an increase in debt stock will lead to a decrease on the economic growth rate of Nigeria.

Ezeabasili, Isuand and Mojekwu,(2011) examined the correlation connecting Nigeria's external debt and economic growth between 1975 and 2006 applying econometric analyses. The outcome of the error correction estimates revealed that external debt has a negative correlation with the growth of Nigeria economy. They recommended that Nigeria government should put to consideration the ability to absorb note than considering low debt to gross domestic product (GDP) as well as low debt service. Also, future debt negotiation should be considered using GDP capacity ratios.

In a related study conducted by Amassoma (2011) investigating the fundamental nexus between external debt, internal debt, and economic growth in Nigeria, employed the causality test of Granger in determining the course of causality of the variables. He found that a bi-directional causal relationship exist between internal debt and Nigeria's economic growth, whereas external debt and the country's economic growth have a causal relationship that is unidirectional; suggesting that economic growth causes external debt in Nigeria.

Atique and Malik (2012) researched on the impact of domestic and external debt on the economic growth of Pakistan independently within the period of 1980-2010. The ordinary Least Square (OLS) approach was adopted, and also co-integration test. The result revealed a significant inverse relationship in both, that is, an opposite relationship among domestic debt and the nation's economic growth, and external debt and the nation's economic growth.

Similarly, Momodu (2012) looked into the affiliation between debt servicing and economic growth in Nigeria. The study required to find the affiliation among the Gross Domestic product (GDP) and Gross Fixed Capital Formation of Current Market Prices (GFCF). The Ordinary Least Square multiple regression method were employed for the analysis of data. The outcome of the analysis showed that there is a significant impact of debt payment to Nigerian creditors on the Gross Domestic Product (GDP) and Gross Fixed Capital Formation of Current Market Prices (GFCF).

Oke and Sulaiman (2012) oversee the correlation of external debt, economic growth level and investment volume in Nigeria designed for 28 years, starting from 1980 – 2008. The dependent variable in the study is the Gross Domestic Product (GDP) whereas, external reserves ratio to external debt, private investment, exchange rate, interest rate, debt service ratio and inflation rate served as the explanatory variable in the study. Multiple regression analysis was used for analyzing the data. From the result of analysis of data, The research result showed that there exist a positive relationship among external debt, economic growth and investment in Nigeria.

Kabadiya, Uzun and Karakoji,(2012) verified the impact of external debt on economic growth in 19 Transitional economies. The adoption of panel Autoregressive distributed lag (ARDL) model was applied. It was discovered that there is a positive and significant impact of external debt on economic growth, also on the long run a positive impact exist on the openness of the economy, whereas on the short run, external debt to export ratio a negative impact exist on the rate of growth of the transitional economies.

3. Research Methode

This research is designed to evaluate the impact of external debt management on economic growth of Nigeria from 1986 to 2018. The ex post facto (after - the- fact) research design was used for thirty-three years study period because secondary sources of data were explored.

3.1 Model specification

The model adopted in this study is similar to that used by Ajayi, and Oke (2012), their empirical analysis of the Effect of external debt on economic growth and development of Nigeria. They presented the extent to which external debt and economic growth of Nigeria were related as a simple open macro-economic debt growth model. The utilitarian association among the variables is mathematically expressed as:

$$NI = F(DSP, EXTR, INTR)$$

The model engaged in their study include the following

$$NI = \beta_0 + \beta_1 DSP + \beta_2 EXTR + \beta_3 INTR + U \quad (3.1)$$

Where:

NI = National Income

DSP = Debt Services Payment

EXTR = External Reserves

INTR = Interest Rate

U = Stochastic error term

$\beta_1, \beta_2, \beta_3$ = slope of the regression equation.

This study employed with modification the model similar to the above authors. Subject to the agreement with previous empirical studies, our models were therefore specified mathematically as follows in relation to each of the hypotheses:

$$RGDP = f(EXD, EXDS, BOP, EXR) \quad (3)$$

Where;

RGDP = Real gross domestic product

EXD = External debt

EXDS = External debt service

BOP = Balance of payments

EXR = Exchange rate

Following little modifications made on the previous empirical model adopted the mathematical form of the equation to ascertain the impact of external debt management on economic growth of Nigeria is stated as follows:

$$RGDP = \beta_0 + \beta_1 EXD + \beta_2 EXDS + \beta_3 BOP + \beta_4 EXR + e$$

Where:

$\beta_1, \beta_2, \beta_3, \beta_4$ = the slope of the regression equation.

E = the error term.

In the equation, other variables remain as explained above.

The equations above were formed from determining the solution of the behavioral demand and supply function for the growth of Nigeria economy. It is expected that all the independent variables shall be positive and significant in the model.

4. Result and Discussion

4.1 Unit Root Test

Table 1 Unit Root Test Result (Summary)

Variables	Levels					1 st Differences					Order of Integration
	ADF t-stat	Critical Values				ADF t-stat	Critical Values				
		@ 1%	@ 5%	@ 10%	p-value		@ 1%	@ 5%	@ 10%	p-value	
RGDP	-2.79	-4.27	-3.55	-3.21	1.0000	-7.85	-4.28	-3.56	-3.21	0.0003	I(1)
EXD	-1.91	-4.28	-3.56	-3.21	0.6231	-5.59	-4.28	-3.56	-3.21	0.0269	I(1)
EXDS	-3.19	-4.27	-3.55	-3.21	1.0000	-5.80	-4.28	-3.56	-3.21	0.0299	I(1)
BOP	-3.00	-4.37	-3.60	-3.23	0.1497	-6.97	-4.37	-3.60	-3.23	0.0293	I(1)
EXR	-1.64	-4.27	-3.55	-3.21	0.7511	-5.06	-4.28	-3.56	-3.21	0.0015	I(1)

Source: E-views 9.0

Table 4.1 showed the unit root test result on all the variables and it indicated that they are non stationary in the same order. This is proven by comparing the values presented carefully in the statistical test of Augmented Dickey fuller (ADF) at 1 percent, 5 percent and 10 percent level of significance. From the test result, the variables showed differenced at once and at first difference, the variables are stationary. This means that, the variables were in the same order integrated I(1). Meanwhile, the result of the test had a mixed order of integration which necessitates the application of Auto-Regressive Distributed Lag (ARDL) cointegration approach to verify possible long run relationship.

4.2 Co-integration test

Table 2. Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.900776	130.7288	69.81889	0.0000
At most 1 *	0.647420	59.10729	47.85613	0.0031
At most 2	0.458796	26.79045	29.79707	0.1069
At most 3	0.221362	7.757730	15.49471	0.4917
At most 4	3.99E-05	0.001238	3.841466	0.9713

Trace test point out 2 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

The results in Table 2 are estimated using Johansen co-integration approach. The long-run relationships among the variables were estimated over a thirty-three year period (1986-2018). The Johansen co-integration trace test result betokens 2 cointegrating equations at 0.05 level of significance. It implies that external debt variables and economic growth of Nigeria have a long run relationship within the reference period.

ARDL result on the impact of external debt management on economic growth of Nigeria. The regression result of ARDL is presented in Table 4.3 and discussion exhaustively:

Table 3 ARDL regression result

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
RGDP(-1)	0.490673	0.157205	3.121221	0.0262
RGDP(-2)	0.304642	0.208849	1.458669	0.2045
RGDP(-3)	-0.520908	0.184343	-2.825750	0.0369
EXD	0.909678	0.514275	1.768855	0.1371
EXD(-1)	0.865502	0.544784	3.588706	0.0130
EXD(-2)	-0.580277	1.090113	-0.532309	0.6173
EXD(-3)	0.048478	0.593532	0.081677	0.9381
EXD(-4)	-2.045316	0.830480	-4.462812	0.0070
EXDS	14.13705	6.010680	2.351988	0.0654
EXDS(-1)	4.915305	5.264859	0.933606	0.3934
EXDS(-2)	15.68350	5.792002	2.707785	0.0424
EXDS(-3)	22.48635	5.632838	3.992011	0.0104
EXDS(-4)	-14.16097	5.509409	-2.570326	0.0500
BOP	0.644525	0.208530	3.090810	0.0271
BOP(-1)	1.184858	0.282493	4.194287	0.0085
BOP(-2)	1.368991	0.445600	3.072245	0.0277
EXR	3.311399	16.83096	0.196745	0.8518
EXR(-1)	-16.31137	14.25764	-1.144044	0.3044
EXR(-2)	29.26955	23.57520	1.241540	0.2695
EXR(-3)	24.61201	15.03585	1.636888	0.1626

EXR(-4)	-14.38044	23.77993	-0.604730	0.5718
C	-410.3936	184.1927	-2.228067	0.0764
R-squared	0.732984	Mean dependent var		36055.83
Adjusted R-squared	0.729909	S.D. dependent var		39581.11
S.E. of regression	376.9102	Akaike info criterion		14.59921
Sum squared resid	710306.5	Schwarz criterion		15.73076
Log likelihood	-187.6885	Hannan-Quinn criter.		14.95359
F-statistic	13425.28	Durbin-Watson stat		2.252055
Prob(F-statistic)	0.000000			

Source: Author's computation using E-view 9.0

E-view Auto- Regressive Distribution Lag (ARDL) calculate many diagnostic statistic; the coefficient, the coefficient of multiple determination (R^2), the F-statistics, Durbin-Watson statistics and the probability values will be considered in the interpretation of result.

The Coefficient: Following the values of coefficient for external debt (EXD) in all the lags are 0.909678, 0.865502, - 0.580277, 0.048478 and - 2.045316. The value of coefficient for external debt service (EXDS) are 14.13706, 4.915305, 15.68350, 22.48635 and - 14.16097. The values of coefficient for Balance of payment (BOP) are 0.044525, 1.184858 and 1.368991. The values of coefficient for exchange rate are 3.311399, -16.31137, 29.26955, 24.61201 and - 14.38044. While the constant intercept (C) is - 410.3936. The value of - 410.3936 for C represents what economic growth (RGDP) output will amount to without External debt (EXD), External debt service (EXDS), Balance of payment (BOP) and Exchange rate (EXR).

The coefficient values of 0.909678 and 0.048478 for External debt (EXD) implies that holding other factors constant a unit raise in External debt leads to 0.909678 and 0.048478 percent increase in economic growth (RGDP). The same interpretation holds true for External debt service payment, Balance of payment and Exchange rate with positive coefficients values.

Still on the coefficient of External debt; the values of - 0.580277 and -2.045316 implies that a unit decrease in External debt leads to - 0.580277 and - 2.045316 percent decrease in economic growth (RGDP). Also the same interpretation holds true for External debt service payment, Balance of payment and Exchange rate with negative coefficient values.

The coefficient of multiple determinations (R^2): The R^2 value of 0.732984 means that the explanatory variables account for about 73 percent variation in economic growth of Nigeria. In other words, EXD, EXDS, BOP and EXR account for about 73% variation in RGDP.

The F-Statistics: The estimated F- value of 13425.28 is highly significant because the P- value is zero (0.000000). The null hypotheses can be strongly rejected which states that External debt, External debt service payment, Balance of payment and Exchange rate do not have significant impact on economic growth of Nigeria. In other words, all the variables are statistically significant on the growth of Nigeria economy.

Durbin – Watson statistic: Durbin – Watson statistic with the value of 2.252055 indicates absence of serial correlation in the error terms. This means the outcome of the regression should be relied upon.

The Probability value: Considering the value of probability at 5% significance level on the independent variable, EXD, EXDS and BOP. It means that they are statistically significant on the growth of Nigeria economy. While the probability value for Exchange rate is statistically insignificant on the growth of Nigeria economy.

Discussion of Results

The study being both quantitative and explanatory brought to bear the impact of external debt management on economic growth of Nigeria with the use of annual time series data within the period of 1986-2018. The study employed a multiple regression using ARDL model which made it possible to predict the prediction of the impact on the regressors and the regressand. The coefficients of the predictors which is significant at 5% level were mixed, i.e. both negative and positive showing the extent of impact the variables had contributed on Nigeria's economic growth.

Study over the years on the impact of external debt on the economic growth of a nation has aroused the interest of many scholars, even though the empirical results from a number of these studies are diverse in nature of uniformity. Our finding from the analytical result revealed that of the four independent variables tested, External Debt (EXD) and External Debt Servicing (EXDS) exhibited an impact that is statistically significant on Nigeria's economic growth proxy by (RGDP), although this relationship is heterogeneous across the various lags. The implication of this relationship is that strategic management of the various fund obtained through external debt at one time or the other has promoted economic productivity.

Furthermore, the External Debt Servicing (EXDS) have impacted statistically significant on the Real Gross Domestic Product (RGDP) of Nigeria. This is an evidence that the Nigerian economy has gained at some points in time following the debt serving in operation by the nation. This significant impact is appropriate with the study by Amassoma (2011). However, our result with significant impact for external debt accumulation is in variance with Ogege and Ekpudu (2010) who found that external debt accumulation and volatility of exchange rate has hindered growth in Nigeria.

Furthermore, from the findings, Balance of Payment (BOP) showed a significant impact on Real Gross Domestic Product (RGDP), this means that within the reference period balance of payment have contributed meaningfully to the economic output in the country. Also Exchange rate (EXR) showed an insignificant relationship with Real Gross Domestic Product (RGDP), this means that within the time frame covered on the study Exchange rate has not contributed meaningfully to the economic output in the country. The finding of insignificant contribution of exchange rate is appropriate with Kabadiya *et al.*, (2012) which also discovered a negative impact between exchange rate volatility and economic growth.

5. Conclusion

This study ascertained the impact of external debt management on economic growth of Nigeria.

External debt management refers to as the establishment of the condition of issue and redemption of public securities/foreign loan. Its aim is to see that the need for borrowed fund by the government and the agreement of payment are done at a considerable cost on the long run,

consistence with wise degree of risk. On the other hand, economic growth is when the production of economic goods and services gets higher from a particular period to another period. Just as the economic growth of Nigeria is important so external debt and external debt management is an important component of the economic picture of Nigeria and failure to make repayment can cause serious economic upheaval. However the study was carried out to evaluate the impact of external debt management on Nigeria's economic growth.

From the study, result of findings revealed the outcome of all the variables on economic growth of Nigeria.

External debt exerted a significant impact on economic growth of Nigeria.

External debt service payment also shows a significant impact on economic growth of Nigeria.

In like manner, Balance of payment revealed significant impact on economic growth of Nigeria.

However Exchange rate is statistically insignificant in economic growth of Nigeria.

The empirical result reported that rise in external debt affect economic growth. The result found that not the variables were all significant on the model of economic growth within the reference period except exchange rate which was statistically insignificant, meaning that the contribution of exchange rate over these years has been minimal on RGDP. On the aggregate, there was strong influence of the external debt on the aforementioned country's economic growth. On this bases, H_{01} , H_{02} , and H_{03} were rejected following the tested hypotheses from the regression result while, H_{04} was accepted.

Based on the results, summary of findings and conclusions discussed in the foregoing paragraphs, the government and policymakers in Nigeria should consider the following recommendations to improve external debt management for economic growth.

On Nigeria's external debt the governments should establish and adopt an optimal balance between external debt acquisition and application/allocation of the acquired funds to productive projects for the purpose of making a high output and a steady economic growth.

Furthermore, to maintain economic growth, Nigeria should not have high external debt (EXD) and low real gross domestic product (RGDP) as this will cause a risk of defaulting on external debt payments.

External debt service payments (EXDS) had positively and significantly impacted on the country's real gross domestic product (RGDP), which leads to economic growth of the nation Nigeria; it explains right application of the borrowed fund which encourages responsiveness of the government to service/pay back borrowed funds from external bodies. This study recommends that the management should live up to expectation by maintaining and encouraging effective and efficient commitment of money borrowed to productive projects so as to comply with debt servicing agreement and outright payments.

Balance of payment (BOP) also with positive impact on real gross domestic product (RGDP); has been an instrument in enhancing the nation's economic growth. The government should therefore produce enough economic output to maintain the payment for its growth, with improve

export performance and a lower income elasticity of demand for import, as a faster economic growth will be achieved.

The negative impact of exchange rate (EXR) on the nation's real gross domestic product (RGDP) if it continues will indicate no future hope for the Nigeria economy through productivity and currency appreciation. This is because economic productivity and exchange rate stabilization is central to effective foreign exchange policy formulation and debt management. This means that measures such as improving exports should be implemented to ensure that local currencies are stable. As a result, the value of foreign currency denominated external debt will not increase significantly as local currencies depreciate over time.

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