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ENTERPRISE RISK MANAGEMENT AWARENESS AND ITS IMPLEMENTATION ON PERFORMANCE OF SERVICE FIRMS IN NIGERIA

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ABSTRACT

Following the increasing number of fold ups as well as mergers and acquisitions in service sector, a number of concerns as regard issues leading to their folding up have been speculated. It is believed by considering risk management in a holistic form through the adoption of enterprise risk management (ERM) to critical areas of business rather than relying on a silo-based risk management perspective, will increase both the organisation's short and long-term value to its stakeholders. Consequently, this study attempts to: investigate the level of ERM awareness in selected service firms by verifying the challenges affecting ERM adoptions; examine effect of enterprise risk management on business decision; investigate whether ERM adoption leads to operational efficiency; and examine the effect of ERM on organisation performance in selected service firms in Nigeria. A total of 74 firms including banks and insurance companies were considered. Data were collected from both the middle and top levels management of the selected firms in Lagos metropolis. Descriptive and non-parametric statistics were used to analyse the data. The findings revealed that service firms have good level of ERM awareness, even though its adoption poses serious challenges to the selected firms. The study also found that there is improvement in business decisions and operational efficiency of selected service firms following the adoption of ERM. Finally, most service firms are more likely to experience improved internal decision-making, and increased business performance due to good implementation of ERM. Based on these findings, the study concluded that there is strong level of ERM awareness and implementation among the selected firms but many of them still battle with implementation challenges such as difficulty in integrating risk management with other business process as well as lack of clarity on who is responsible for managing risk. All of these in turn have practically hindered them from operating at full capacity. In light of this, the study recommends that the selected service firms need to device means to integrate risk managements with other business processes and seek the necessary knowledge and skills within the organisations to effectively implement ERM in their firms.

Keywords: ERM awareness, business decision, risk management, service firms.

1.0 INTRODUCTION

Every business is faced with unpredictable risks that threaten its survival. This brings a fundamental concern in today's dynamic global environment where crucial events affecting organisation survival cannot be tackled headlong without recourse to sound risk management. In recent years, however, a paradigm shift has occurred regarding the way to view risk management. Instead of looking at risk management from a silo-based perspective, the trend now is to take a holistic view of risk management. This holistic approach toward managing an organisation's risk is commonly referred to as enterprise risk management (ERM) (Gordon, Loeb, & Tseng, 2009). ERM presents a fundamental shift in the way organisations identify, evaluate, prioritize, manage and monitor risks – moving away from silos to a holistic, integrated approach. In implementing formal risk management frameworks, organisations can be assisted to proactively manage threats that could frustrate the achievement of entity objectives while maximizing opportunities.

In the insurance industry, ERM has become a high-priority and interesting topic area of investment (DiSerafino, 2016). In many cases, the effort has been guided primarily by the need to meet new regulatory standards. The key considerations in meeting minimum requirements for Own Risk and Solvency Assessment (ORSA) are stress-testing programmes and concerns about being designated as a systemically important financial institution (SIFI) (DiSerafino, 2016), with a view to ensuring good

governance in business entity. **Good** governance is crucial to business survival because it assists organisation to efficiently implement strategy and making better decisions in the face of risk and uncertainty affecting companies (Deloitte, 2015). To balance risk and return, companies under go pressure in order to clearly articulate how they identify the principal risks to their business and how they ensure these are being managed within the risk appetite (Deloitte, 2015).

To some extent, ERM has become a standard part of the management infrastructure for large insurance companies and banks as well as other big hospitalities. More risk-informed thinking is now enshrined in the business to an unprecedented degree (DiSerafino, 2016). An increasing number of scholars view ERM as the fundamental paradigm for managing the portfolio of risks confronting organisations (Lam, 2003; Liebenberg & Hoyt, 2003; Nocco & Stulz, 2006; Beasley, Chen, Nunez, Wright & 2006; Hoyt & Liebenberg, 2009). Driving this trend is the belief that ERM offers companies a more comprehensive approach toward risk management than the traditional silo-based risk management perspective. By adopting a systematic and consistent approach (or process) to managing all of the risks confronting an organisation, ERM is presumed to lower a firm's overall risk of failure and thus increase the performance and, in turn, the value of the organisation (Gordon *et al.*, 2009).

Despite the increased interest in ERM by academics and practitioners and the

abundance of survey evidence on the prevalence and characteristics of ERM programs, there is an absence of empirical evidence regarding the impact of such programs on firm value (Hoyt & Liebenberg, 2006). A general argument gaining attention in the literature is that the implementation of an ERM system improves firm performance (Lam, 2003; Nocco & Stulz, 2006; Hoyt & Liebenberg, 2009). The findings by Hoyt and Liebenberg (2009) on a study carried out on data from the insurance industry support this argument. Meanwhile, Gordon et al (2009) has criticized it on the ground that this empirical evidence was not based on a robust measure of ERM.

Following the increasing number of fold ups as well as mergers and acquisitions in many big companies especially banks and insurance, a number of concerns as regard issues leading to their folding up have been speculated but no evidence of any empirical studies in respect of ERM that have been carried out in Nigeria to address why large companies are folding up on a regular basis. Many studies on how to effectively manage risks threatening the survival of these companies have relied on a silo approach to risk management (e.g. see Adeyele & Osemene, 2018; Adeyele & Omorokunwa, 2017; Isimoya, 2004). Although these studies provide useful approach to risk management but the lack of empirical research on how ERM should be used to reduce organisation exposures to risks justified the need for the present study.

It is believed by considering risk management in a holistic form through the adoption of enterprise risk management (ERM) to critical areas of business rather

than considering risk management from a silo-based perspective, will reduce their exposures to risks that threaten their survival thereby increasing both the organisation's short- and long-term value to its stakeholders. Consequently, this study attempts to: **investigate the level of ERM awareness in selected service firms in Nigeria; verify the challenges affecting ERM adoptions among the selected service firms; identify effect of enterprise risk management on business decision in selected service firms; find out whether ERM adoption leads to operational efficiency of selected service firms; and examine the effect of ERM on organisation performance in selected service firms. The outcome of this study will no doubt assist service firms in finance sectors and other hospitality companies to reduce their risk exposures that affect their performance.**

2.0 L I T E R A T U R E REVIEW

Strategic risk management (SRM) is a term used in actuarial parlance to imply enterprise risk management (ERM) and does not mean strategic management as used in other disciplines. In this study, the terms SRM and ERM are used interchangeably. SRM is gaining traction in a range of industries largely because it is delivering results (Gordon, Loeb & Tseng, 2009). The relation between a firm's ERM and its performance is contingent on the proper match between a firm's ERM and the following five firm-related variables: environmental uncertainty, industry competition, firm size, firm complexity and board of directors' monitoring (Gordon, Loeb & Tseng, 2009). One of the most popular definitions of ERM used in the literature is the one provided by COSO

(2004) and it defines ERM as a process, effected by an entity's board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives. Unlike traditional risk management where individual risk categories are managed differently in risk 'silos', ERM enables firms to manage a wide array of risks in an integrated, holistic fashion (Hoyt & Liebenberg, 2006). Proponents argue that ERM assists firms to reduce earnings and stock-price fluctuation, external capital costs, capital efficiency, and create synergies between different risk management activities (Miccolis & Shah, 2000; Cumming & Hirtle, 2001; Lam, 2001; Meulbroek, 2002). Lam (2000) cited in Niralia (2017) defines ERM as an integrated structure which involves managing of all business related risks such as market risks, credit risk, economic capital, operational risk, and risk transfer so as to upgrade the value of the firm as defined. ERM has been adjudged to promote sound risk management awareness that leads to better operational and strategic decision-making. This becomes inevitable following the global financial crisis that started in September, 2008.

As the impacts of the global financial crisis further recede, more stakeholders are seeking the next horizon, where risk management is truly and deeply integrated into the business. That is where strategic risk management (SRM) comes in. Strategic risk management is gaining

traction in a range of industries largely because it is delivering results. Companies outside insurance and financial services are also winning with strategic risk management (DiSerafino, 2016). Strategic risk management programs are most concerned with deeper understanding of corporate risk appetite relative to a complex set of risks and interdependencies; and employing strategies for determining the right key risk indicators, based on the complex and sophisticated risk appetite statement, with upper and lower limits stipulated for each indicator (DiSerafino, 2016).

There is a longstanding and largely understandable perception that any type of risk management is equivalent to “playing defense,” or protecting the business from a range of threats (Gordon, Loeb & Tseng, 2009). This is a myth that very much needs to be retired within insurance, and strategic risk management may be the most effective means for doing that (Gordon, Loeb & Tseng, 2009). This in other words implies that the effective practice of strategic risk management may lead companies to determine that they are not taking enough risk to meet their growth goals, expand their customer base or otherwise improve performance (DiSerafino, 2016; Gordon, Loeb & Tseng, 2009). COSO (2004), note that an effective ERM system is dependent on active participation by an organisation's board of directors. Kleffner et al (2003) found that adoption of an ERM strategy is associated with encouragement from the board of directors.

ERM provides a structure that combines all risk management activities into one integrated framework that facilitates the identification of such interdependencies (Hoyt *et al*, 2006). By improving risk management disclosure, ERM is likely to reduce the expected costs of regulatory scrutiny and external capital (Meulbroek, 2002). Also, for insurers the major ratings agencies have put increasing focus on risk management and ERM specifically as part of their financial review. This is likely to provide additional incentives for insurers to consider ERM programmes, and also suggests a potential value implication to the existence of ERM programs in insurance companies (Hoyt *et al*, 2006). As an example of this interest from the rating agencies in the implications of ERM, in October 2005 Standard & Poor's announced that with the emergence of ERM, risk management will become a separate discipline. Makomaski (2008) refers to ERM as a tool for decision-making in cases of companies holding varied business goals. Similarly, Walker, Shenkir and Barton (2003) define ERM as an integrated and a disciplined method which exists in organizations and facilitates systematic managing of firm related risks in an organisation and helps in achieving the objectives of an enterprise.

In developing its ERM framework, COSO (2004) recognizes that the appropriate ERM system will likely vary from firm to firm. In essence, COSO suggests a contingency perspective toward the appropriate ERM system for a particular organisation. Nocco and Stulz (2006) also emphasized the adoption of ERM in an organisation creates value for

stakeholders. Beyond improving internal decision-making (Nocco & Stulz, 2006), ERM can also lead to more efficient capital allocation (Myers & Reed, 2001), better capital structure decisions, and better risk management decisions (Cummins, Phillips & Smith, 2001).

3.0 METHODOLOGY

This study relies on primary data which were sourced from employees occupying the middle and top levels management including managers, and executive directors of the selected organisations. Permission was sought from the selected firms to respond to questionnaire sent to them through e-mail and in some cases hard copies of questionnaire were sent to some firms depending on the respondents preferences. A total of 74 companies responded to distributed questionnaire in the following distribution: hospitality, 28; insurance companies, 34; and banks, 12. These companies were purposively selected due to their size and network of customers. Both descriptive and non parametric statistics such as Monte Carlo test were used to analyse the data collected. For clarity of decision making in respect of data, the following basis of decision rules were adopted:

- Accept if significant is greater than P-value of 0.05,
- Reject if significant is less than P-value of 0.05

The criteria for determining agreement of variables are given as:

1= extremely weak, 2 = very weak, 3 = weak, 4 = moderate, 5 = strong, 6 = very strong, and 7 = extremely strong. From this scale of 1 to 7, if the mean weight (MW) < 1.5 it means extremely weak; if

the mean weight (MW) is within 1.5 $\leq MW \leq 2.49$ it means very weak; if the mean weight (MW) is within 2.5 $\leq MW \leq 2.49$ it implies weak; if the mean weight (MW) is within 3.5 $\leq MW \leq 2.49$ it implies moderate; if the mean weight (MW) is within 4.5 $\leq MW \leq 2.49$, it means strong; if the mean weight (MW) is within 5.5 $\leq MW \leq 2.49$, it means very strong while mean weight $MW \leq 6.49$ means it is extremely strong.

4.0 DATA ANALYSIS AND INTERPRETATION OF RESULTS

Enterprise risk management awareness among service firms as well as their willingness to implement it in these firms is expected to enhance decision making process thereby increasing the organisation value. In this section, the extent of ERM awareness, implementation strategies, adoption challenges and strategic risk management are considered.

Table 1: Enterprise risk management awareness in selected service firms in Nigeria

		N	Mean	Std. Deviation	Minimum	Maximum	Coefficient of variation	Monte Carlo Sig.
EA1	There is a formal structure in place for monitoring risk and response	74	4.6757	1.44401	1.00	7.00	0.3088337	.000 ⁿ
EA2	We have the necessary information to manage risk at an enterprise-wide level	74	4.6216	1.33142	2.00	7.00	0.2880848	.000 ⁿ
EA3	We have a common terminology, methodology and set of standards for managing risk	74	4.5405	1.45423	1.00	7.00	0.3202759	.000 ⁿ
EA4	Company objectives, policies and tolerance for risk are clearly communicated through the organization	74	5.0811	1.57686	2.00	7.00	0.3103394	.000 ⁿ
	ERMANES	74	4.7297	1.17680	2.25	6.75	0.2488091	.000 ⁿ

Source: Authors' computation, 2019.

Table 1 shows the enterprise risk management in selected service firms in Nigeria. In all the four criteria used for the assessment, there are respondents who extremely disagreed with them as well as those who extremely agreed with all of them. In the first and second criteria, many respondents agreed there is a formal

structure in place for monitoring risk and response (EA1:Mean/std dev. = 4.6757/1.44401, coefficient of variation = 0.3088337, $p < 0.05$), and they have the necessary information to manage risk at an enterprise-wide level (EA2:mean/std dev. = 4.6216/1.33142, coefficient of variation = 0.2880848, $p < 0.05$). Also, many

respondents agreed they have a common terminology, methodology and set of standards for managing risk (EA3:mean/std dev. = 4.5405/1.45423, coefficient of variation = 0.3202759, $p < 0.05$), since their companies' objectives, policies and tolerance for risk are clearly communicated through the organisation (EA4:mean/std dev. = 5.0811/1.57686, coefficient of variation = 0.3103394, $p < 0.05$). In all of these criteria, the most significantly reliable of them all is criterion EA2 in which many agreed that they have

the necessary information to manage risk at an enterprise-wide level. All of these results aggregately lead to general agreement (5point out of 7) (ERMANES: mean/std dev. = 4.7297/1.17680, coefficient of variation = 0.2488091, $p < 0.05$) indicating the extent of enterprise risk management awareness among the service firms .Based on the respondents' score on the scale of 1 to 7, it can be concluded that service firms have good level of awareness about enterprise risk management.

Table 2: Strategy implementation of ERM strategy in service firms

		N	Mean	Std. Deviation	Minimum	Maximum	Coefficient of variation	Monte Carlo Sig.
ESI1	Policy is supported at board of director or executive level	74	4.5946	1.27052	1.00	7.00	0.2765246	.000 ^a
ESI2	Having an enterprise risk data infrastructure in place	74	4.9189	1.15577	3.00	7.00	0.234964	.000 ^a
ESI3	Adequate employee training	74	4.9459	1.40344	1.00	7.00	0.2837554	.000 ^a
ESI4	Hiring qualified staff	74	5.3243	1.07408	2.00	7.00	0.2017307	.000 ^a
ESI5	Ability for organisation to adapt to changes in business environment	74	5.4054	1.18112	2.00	7.00	0.2185068	.000 ^a
	ERMIMP	74	5.0315	.95391	2.50	6.67	0.1895871	.014 ^a

Source: Authors' computation, 2019.

Table 2 deals with strategy implementation of ERM in selected service firms. From the range of 1 to 7 level of agreement, there are those who extremely disagreed (1) as well as those who extremely agreed (7) with the listed criteria. In the first and second criteria, many respondents agreed that policy in respect of enterprise risk management is supported at board of director or executive level (ESI1:mean/std dev. = 4.5946/1.27052, coefficient of variation = 0.2765246, $p < 0.05$), by having

an enterprise risk data infrastructure in place (ESI2:mean/std dev. = 4.5946/1.27052, coefficient of variation = 0.234964, $p < 0.05$). Many respondents also agreed with third and fourth criteria that their firms ensure adequate training of employees (ESI3:mean/std dev. = 4.9459/1.40344, coefficient of variation = 0.2837554, $p < 0.05$), and hiring of qualified staff (ESI4:mean/std dev. = 5.3243/1.07408, coefficient of variation = 0.2017307, $p < 0.05$) for purposes of

effective ERM implementation in their respective firms. Similarly, many respondents agreed that their organisations have capacity to adapt changes in business environment (ESI5: mean/std dev. = 5.4054/1.18112, coefficient of variation = 0.2185068, $p < 0.05$). All of these results on

the average suggest that implementation strategy within the scale of measurement of 1 to 7 is good (5) (ERMIMP: mean/std dev. = 5.0315/0.95391, coefficient of variation = 0.1895871, $p < 0.05$). Hence, it can be said that implementation strategy for ERM in selected firms is good.

Table 3: ERM adoptions and challenges in selected service firms

		N	Mean	Std. Deviation	Minimum	Maximum	Coefficient of variation	Monte Carlo Sig.
EAS1	Embedding risk management within company culture	74	4.6757	1.49985	1.00	7.00	0.3207763	.000 ⁿ
EAS2	Difficulty in quantifying risks	74	4.3784	1.50527	1.00	7.00	0.3437955	.000 ⁿ
EAS3	Timeliness and quality of information	74	4.7297	1.41709	1.00	7.00	0.2996134	.000 ⁿ
EAS4	Difficulty in integrating risk management with other business processes	74	4.7455	1.23556	2.00	7.00	0.2603663	.000 ⁿ
EAS5	Lack of necessary knowledge and skills within the organization	55	4.4364	1.54876	1.00	7.00	0.3491054	.000 ⁿ
EAS6	It's not clear who is responsible for managing risk	55	4.4727	1.57356	1.00	7.00	0.3518124	.000 ⁿ
	ERMADPCH	55	4.6303	1.04216	2.17	6.17	0.2250743	.284 ⁿ

In Table 3, ERM adoptions and challenges in selected service firms are shown. Within the range of 1 to 7, many respondents agreed that risk management is embedded within company culture (EAS1: mean/std dev. = 4.6757/1.49985, coefficient of variation = 0.3207763, $p < 0.05$), though many are indifferent as to whether there is any difficulty for them to quantify risks (EAS2: mean/std dev. = 4.3784/1.50527, coefficient of variation = 0.3437955, $p < 0.05$). Another challenge in which many respondents agreed with in adoption of ERM is timeliness and quality of information (EAS3: mean/std dev. = 4.7297/1.41709, coefficient of variation = 0.2996134, $p < 0.05$). However, many

respondents are indifferent as to whether difficulty in integrating risk management with other business processes (EAS4: mean/std dev. = 4.7455/1.23556, coefficient of variation = 0.2603663, $p < 0.05$), lack of necessary knowledge and skills within the organisation (EAS5: mean/std dev. = 4.4364/1.54876, coefficient of variation = 0.3491054, $p < 0.05$), and lack of clarity of who is responsible for managing risk (EAS6: mean/std dev. = 4.4727/1.57356, coefficient of variation = 0.3518124, $p < 0.05$). In all of these ERM risks, the one that significantly affect them most is EAS4 which implies that difficulty in integrating risk management with other business

processes is major challenge to ERM adoption. Meanwhile the overall weight of ERM risk adoption poses serious challenge to the selected firms (ERMADPCH:

mean/std dev. = 4.6303/1.04216, coefficient of variation = 0.2250743, $p < 0.05$).

Table 4: Strategic risk management in the selected firms.

		N	Mean	Std. Deviation	Minimum	Maximum	Coefficient of variation	Monte Carlo Sig.
SRI1	ERM enables firms to manage a wide array of risks in an integrated, holistic fashion	55	4.7636	1.26145	2.00	7.00	0.2648073	.000 ^b
SRI2	ERM benefits firms by decreasing earnings and stock - price volatility	55	4.9636	1.26145	1.00	7.00	0.2541375	.000 ^b
SRI3	ERM increases capital efficiency, and creating synergies between different risk management activities	55	5.0000	1.17063	2.00	7.00	0.2341256	.000 ^b
SRI4	ERM promotes increased risk management awareness that translates into better operational and strategic decision -making	55	5.1636	1.13470	2.00	7.00	0.2197481	.000 ^b
SRI5	ERM creates synergies between different risk management activities	55	5.1636	1.16688	2.00	7.00	0.2259809	.000 ^b
	STRISKMG	55	5.0109	.94862	2.00	7.00	0.1893108	.000 ^b

Source: Authors' computation, 2019.

Table 4 reveals the level of agreement of respondents to strategic risk management in the selected firms. Within the range of 1 to 7, many respondents significantly agreed that ERM enables firms to manage a wide array of risks in an integrated, holistic fashion (SRI1: mean/std dev. = 4.7636/1.26145, coefficient of variation = 0.2648073, $p < 0.05$) and it benefits firms by decreasing earnings and stock-price volatility (SRI2: mean/std dev. = 4.9636/1.26145, coefficient of variation = 0.2541375, $p < 0.05$). Similarly, many respondents also agreed that ERM increases capital efficiency, and creating synergies between different risk management activities (SRI3: mean/std

dev. = 5.0000/1.17063, coefficient of variation = 0.2341256, $p < 0.05$) as well as promotes increased risk management awareness that translates into better operational and strategic decision-making (SRI4: mean/std dev. = 5.1636/1.13470, coefficient of variation = 0.2197481, $p < 0.05$). They also agreed that ERM creates synergies between different risk management activities in the selected firms (EAS5: mean/std dev. = 5.1636/1.16688, coefficient of variation = 0.2259809, $p < 0.05$). The overall mean also implies that the selected service firms do have good strategic risk management in place (STRISKMG: mean/std dev. = 5.0109/0.94862, coefficient of variation =

0.1893108, $p < 0.05$). Evaluating all the criteria in Table 4 suggests that the selected service firms have good strategic risk

management in place to deal with unforeseen circumstances.

Table 5: Effect of enterprise risk management on business decision in selected service firms

		N	Mean	Std. Deviation	Minimum	Maximum	Coefficient of variation	Monte Carlo Sig.
EBD1	Enterprise risk management is used to support our business decisions	55	5.1455	1.35289	2.00	7.00	0.2629286	.000 ^a
EBD2	Our risk management process is fully integrated within the business planning process	55	5.1091	1.30061	2.00	7.00	0.2545675	.000 ^a
EBD3	Risk management is fully integrated across all functions and business units	55	5.0364	1.53916	2.00	7.00	0.30561	.000 ^a
EBD4	Everyone in our organisation understands the role they play and their level of accountability with regards to managing risk	55	5.2364	1.47778	2.00	7.00	0.2822152	.000 ^a
	BUSDECISN	55	5.1318	1.26185	2.25	7.00	0.2458868	.000 ^a

Source: Authors' computation, 2019.

Table 5 shows business decision as a result of enterprise risk management. In the first and second criteria, within the range of 1 to 7, many respondents agreed that enterprise risk management is used to support business decisions decision in their companies (EBD1: mean/std dev. = 5.1455/1.35289, coefficient of variation = 0.2629286, $p < 0.05$), and that risk management process is fully integrated within the business planning process (EBD2: mean/std dev. = 5.1091/1.30061, coefficient of variation = 0.2545675, $p < 0.05$). Many respondents also agreed that management is fully integrated across all functions and business units (EBD3: mean/std dev. = 5.0364/1.53916, coefficient of variation = 0.30561, $p <$

0.05), in such a way that everyone in organisation understands the role they play and their level of accountability with regards to managing risk (EBD4: mean/std dev. = 5.2364/1.47778, coefficient of variation = 0.2822152, $p < 0.05$). Assessing the overall business decision in term of performance, many respondents came to conclusion that business decision embarked upon in their respective companies is good (BUSDECISN: mean/std dev. = 5.1318/1.26185, coefficient of variation = 0.2458868, $p < 0.05$) and the most significant of these criteria is EBD2 which reveals that risk management process is fully integrated within the business planning process.

Table 6: Influence of enterprise risk management on operational efficiency of selected service firms

		N	Mean	Std. Deviation	Minimum	Maximum	Coefficient of variation	Monte Carlo Sig.
EOF1	ERM improves internal decision-making	55	5.3455	1.10919	2.00	7.00	0.2075016	.000 ^a
EOF2	ERM leads to more efficient capital allocation	55	5.4182	1.19708	1.00	7.00	0.2209373	.000 ^a
EOF3	ERM leads to better capital structure decisions, and better risk management decisions	55	5.0727	1.18407	2.00	7.00	0.2334187	.000 ^a
EOF4	Adoption of ERM has increased the operational efficiency in our companies	55	5.1091	1.22735	2.00	7.00	0.2402294	.000 ^a
EOF5	ERM has also reduces the cost of doing business	55	5.0364	1.29047	2.00	7.00	0.256231	.000 ^a
EOF6	ERM enhances management efficiency	55	5.2364	1.18577	2.00	7.00	0.2264499	.000 ^a
	OPRNEFF	55	5.2030	1.00241	2.00	7.00	0.1926589	.000 ^a

Source: Authors' computation, 2019.

Table 6 is concerned with the influence of enterprise risk management on operational efficiency of selected service firms. In the first to sixth criteria, the least of agreement is 2 (strongly disagreed) with the exemption of EOF1 which is 1 (extremely disagreed) while the upper bound is 7 (extremely agreed). Analysing the first to third criteria together, many respondents agreed that ERM improves internal decision-making (EOF1: mean/std dev. = 5.4182/1.19708, coefficient of variation = 0.2075016, $p < 0.05$), leads to more efficient capital allocation (EOEOF2: mean/std dev. = 5.1250/0.90902, coefficient of variation = 0.2209373, $p < 0.05$), and better capital structure decisions, and better risk management decisions (EOF3: mean/std dev. =

5.0727/1.18407, coefficient of variation = 0.2334187, $p < 0.05$). Also, many respondents agreed that the adoption of ERM has increased the operational efficiency in their respective companies (EOF4: mean/std dev. = 5.1091/1.22735, coefficient of variation = 0.2402294, $p < 0.05$), thereby reducing the cost of doing business (EOF5: mean/std dev. = 5.0364/1.29047, coefficient of variation = 0.256231, $p < 0.05$). Lastly, many respondents agreed that ERM enhances management efficiency (EOF6: mean/std dev. = 5.2364/1.18577, coefficient of variation = 0.2264499, $p < 0.05$). Assessing the most stable of all, EOF1 is found to be more reliably stable which means that most service firms are more likely to experience improves internal

decision-making. Be that as it may, the overall result indicates the adoption of enterprise risk management leads to

efficiency (OPRNEFF: mean/std dev. = 5.2030/1.00241, coefficient of variation = 0.1926589, $p < 0.05$).

Table 7: Effect of enterprise risk management on organisation performance in selected service firms

		N	Mean	Std. Deviation	Minimum	Maximum	Coefficient of variation	Monte Carlo Sig.
EOP1	Implementation of ERM has increased the investment performance of our company	55	5.0182	1.62721	1.00	7.00	0.3242628	.000 ⁿ
EOP2	Implementation of ERM has increased the financial performance	64	5.0938	1.41105	1.00	7.00	0.2770166	.000 ⁿ
EOP3	Implementation of ERM has increased the market performance	55	4.9818	1.43360	2.00	7.00	0.2877671	.000 ⁿ
EOP4	Implementation of ERM has increased our company productivity	55	4.8727	1.49139	1.00	7.00	0.3060687	.000 ⁿ
EOP5	Implementation of ERM has created value for firms survival	55	4.8364	1.38462	2.00	7.00	0.2862935	.000 ⁿ
EOP6	ERM leads to quality of services to customers	55	5.0182	5.0182/1.32624	1.00	7.00	0.2642877	.000 ⁿ
	ORGPREF	55	4.9667	1.28156	1.67	6.83	0.2580315	.000 ⁿ

Source: Authors' computation, 2019.

Table 7 reveals the outcome of enterprise risk management implementation on organisation performance in selected service firms. In the range of assessment, there are respondents who extremely disagreed (EOP1:1), strongly disagreed (EOP2:2) for the lower bound while there are also those who extremely agreed (EOP1-G7: 7) for the upper bound of the listed criteria. In the first and second criteria, many respondents on the average agreed that implementation of ERM in their respective companies have increased

investment performance (EOP1: mean/std dev. = 5.0182/1.62721, coefficient of variation = 0.3242628, $p < 0.05$), and as well increased financial performance (EOP2: mean/std dev. = 5.0938/1.41105, coefficient of variation = 0.2770166, $p < 0.05$). Similarly, many respondents agreed that implementation of ERM has increased the market performance of their respective companies (EOP3: mean/std dev. = 4.9818/1.43360, coefficient of variation = 0.2877671, $p < 0.05$) as well as increasing their companies' productivity (EOP4:

mean/std dev. = 4.8727/1.49139, coefficient of variation = 0.3060687, $p < 0.05$). In the fifth and sixth criteria, many respondents also agreed that ERM implementation has created value for their firms (EOP5: mean/std dev. = 4.8364/1.38462, coefficient of variation = 0.2862935, $p < 0.05$), due to quality of services to customers (EOP6: mean/std dev. = 5.0182/1.32624, coefficient of variation = 0.2642877, $p < 0.05$). Rating the reliability of each criterion, the most stable of all is EOP6 which reveals that ERM leads to quality of services to customers. The second and third most stable are EOP2 and EOP5 that respectively reveals that implementation of ERM has increased the financial performance and has created value for firms survival. The overall mean weight indicates that organisation.

5.0 SUMMARY AND RECOMMENDATIONS

Enterprise risk management awareness level among companies particularly in finance sector is critical and crucial for their survival. This is so because if there is no any awareness, there is no how it can be adopted and subsequently implemented. In this study, we examined among other things companies' level of awareness and implementation strategies. One of the findings revealed that most companies have necessary information to manage risk at enterprise-wide level which translates to good awareness level among enterprise risk management.

Also, using the scale of 1 to 7 for implementation level, all the criteria end

up being 5 which signifies that there are at least good implementation strategies put in place for ERM. Meanwhile, two of these five parameters used to access strategies for ERM implementation turn out to be the more effective than others which include hiring of qualified staff and adapting to changes in business environment. One of the most significant challenges faced among service firms in ERM adoption is difficulty in integrating risk management with other business processes.

Even though the selected service firms have good strategic risk management in place to deal with unforeseen circumstances, it is more glaring that ERM promotes increased risk management awareness that translates into better operational and strategic decision-making. In respect of performance of business decision as a result of enterprise risk management implementation, the study reveals that business decision embarked upon in their respective companies is good due to the fact that risk management process is fully integrated within the business planning process.

The study also revealed that ERM has positive and significant influence on organisation efficiency. As a result, there is a strong level of agreement that most service firms are more likely to experience improved internal decision-making. Rating the reliability of each criterion, the most stable of all is that ERM leads to quality of services to customers and implementation of ERM has increased the financial performance and has created value for firms' survival.

References

- Adeyele, J.S. & Osemene, O.F. (2018). Small and Medium Enterprises' risk exposures and mitigation approaches. *The Journal of Entrepreneurial Finance*. 20(1), 21-42. Available at: <http://digitalcommons.pepperdine.edu/jef/vol18/iss2/2>
- Adeyele, J.S. & Omorokunwa, O.G. (2017). Risk Appetites and empirical survival patterns of SMEs in Nigeria. *The Journal of Entrepreneurial Finance*. 18(2) Available at: <http://digitalcommons.pepperdine.edu/jef/vol18/iss2/2>
- Beasley, M.S., Chen, A., Nunez, K. & Wright, L., (2006). Working hand in hand: Balanced scorecards and enterprise risk management. *Strategic Finance*, 49–55.
- COSO (2004). *Enterprise risk management: Integrated framework*. The Committee of Sponsoring Organizations of the Treadway Commission.
- Cumming, C.M. & Hirtle, B.J., (2001). The challenges of risk management in diversified financial companies, *FRBNY Economic Policy Review*, March.
- Cummins, J. D., Phillips, R.J. & Smith, S.D. (2001). Derivatives and corporate risk management: Participation and volume decisions in the insurance industry. *Journal of Risk & Insurance* 68(1): 51-91.
- Deloitte (2015). Enterprise risk management: A risk intelligent approach. Deloitte Risk Adversary.
- DiSerafino, L. (2016). Getting strategic about risk management: How business can move forward through greater risk awareness.
- Gordon, L. A., Loeb, M. P. & Tseng, C-Y. (2009). Enterprise riskmanagement and firm performance: A contingency perspective. *Journal of Account and Public Policy* 28, 301–327.doi:10.1016/j.jaccpubpol.2009.06.006
- Hoyt, R.E. & Liebenberg, A.P. (2009). The value of enterprise risk management. Working Paper.
- Hoyt, R.E. & Liebenberg, A.P. (2006). The value of enterprise risk management: evidence from the U.S. insurance industry
- Isimoya, O.A (2003) *Risk Management and Insurance Application*. Lagos: Malthouse Press Limited.
- Kleffner, A.E., Lee, R.B. & McGannon, B. (2003). The effect of corporate governance on the use of enterprise risk management: Evidence from Canada, *Risk Management and Insurance Review*, 6, 53-73
- Lam, J., (2003). *Enterprise risk management: From incentives to controls*. John Wiley & Sons, Inc., Hoboken, New Jersey.
- Lam, J. C. (2000). Enterprise-Wide Risk Management and the role of the Chief Risk Officer. Retrieved from http://www.erisk.com/learning/research/011_lamriskoff.pdf
- Lam, J. (2001). The CRO is here to stay, *Risk Management*, 16-20.
- Liebenberg, A.P. & Hoyt, R.E. (2003). Determinants of enterprise risk management: evidence from the

- appointment of Chief Risk Officers, *Risk Management and Insurance Review*, 6, 37-52.
- Mayers, D. & C. Smith, Jr. (1982). On the corporate demand for insurance. *Journal of Business*: 281-296.
- Meulbroek, L. K. (2002). Integrated Risk Management for the Firm: A Senior Manager's Guide. Retrieved 2008, from Harvard Business School: www.hbs.edu/research/facpubs/workingpapers/papers2/0102/02-046.pdf
- Miccolis, Jerry and Samir Shah, 2000, Enterprise Risk Management: An Analytic Approach, Tillinghast – Towers Perrin.
- Niralia, R. (2017). Literature review: on enterprise risk management *Elk Asia Pacific Journal of Finance and Risk Management*; 8(3), DOI: 10.16962/EAPJFRM/issn. 2349-2325/2015. www.elkjournals.com
- Nocco, B.W. & Stulz, R.M. (2006). Enterprise risk management: theory and practice. *Journal of Applied Corporate Finance* 18(4), 8–20.
- The Society of Actuaries and Casualty Actuarial Society (2016). Enterprise Risk Management Symposium April 6–8, Arlington, Virginia.
- Walker, P. L., Shenkir, W. G., & Barton, T. L. (2003).ERM in Practice. *The Internal Auditor*, 60(4), 51-54.

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ABSTRACT

In an increasingly competitive environment, little is acknowledged on how competitiveness in different industries is driven by their technology resource strategy and the plan that guides the growth and exploitation of technological resources. The aim of this study is to examine the relationship between technology resource strategy and competitiveness in Nigerian telecommunication industry. The methodology used for this was review of related literature on the concepts of technology resource strategy and competitiveness. It has been established within the literature reviewed that the three dimensions of tangible and intangible technology resource strategy (manpower, machine and method) and competitiveness are significantly related. In this study, proposed model has been developed to explore the relationship between technology resource and competitiveness. However, the model needs to be elaborated and developed through systematic research. This study has helped to strengthen the body of knowledge on technology resource and competitiveness in telecommunication industry. Also, it has a strong impact as a contribution to strengthening the decision making at the corporate level and developing strategies of technological resources to improve competitive advantage of telecommunication industry. It was recommended that telecommunication industry should establish and improve on exiting technology resource strategy in order to sustain and improve its competitive advantage.

Keywords: Technology resource, Competitiveness, Nigerian telecommunication industry.

1.0 INTRODUCTION

With the recent competitive business environment, it is necessary for organization to strategically manage its technology resource and related skills. The generation of new ideas and knowledge embodied, physical equipment and people to constitute the intangible and tangible resource is vital for competitive advantage (Mantulak et al., 2016; Navarro, Romero, Bauza, & Granadillo, 2006; Siemann, 2017) Better deployment of technology resources entails the need to promote and/or develop organizational capacities that allow for the use of certain knowledge, abilities, skills, and expertise by personnel in order to step up the efficiency of the machines and/or equipment with which they work, identified as distinctive elements that contribute significantly to the production performance of the organization. (Mantulak et al., 2016) Significance of technology strategy is exposed to few organizations like telecommunication industry (Ahmad, Ahmad & Nyager, 2009). Consequently, it is necessary to design strategic position for managing technology resource within the set of functional areas of an organization. The main technology are taken for dispensation in most industries, as firms are struggling on the basis of supplementary technologies (Ahmed, Hassan, & Yussuf, 2013). Organizations are subject to internal factors that may comprise of obstacles that will hamper competitiveness and technological progress (Mantulak et al., 2016). Therefore, it is necessary for an organization to implement a well-planned

process for taking strategic decisions on technological resource.

In telecommunication industry, constraints on competitiveness are characterised improper strategy to manage technology resources and their associated skills for better adaptation between employees and their tools/equipment. They tend to solve technological problems locally through adaptation of parts, or building their own machines, technical and human skills and poor relationship with partners in business and focused more on the short-term resource like financing resource, management processes, daily production and service issues, etc. Several past studies such as that of Ahmad, Hassan, & Yusuf (2013); Mantulak et al., (2016); ZevallosVallejos, (2007); and Sietmann (2017) acknowledged the significant relationship between technology strategy and competitiveness. In this recent world that is globalize, the significance of telecommunication industry cannot be over emphasised (Ahmad, Ahmad & Nyager, 2009). Research has shown in Nigeria that investment has positively impacted the economy in the aspect of teledensity; inspiration of associated industries; corporate social investments; technological development; manpower development; increase the productive capacity of the economy employment generation in telecommunication industry (Ahmad, et al., 2009; Elegbeleye, 2005; Okoruwa, 2007) . Some years ago, through the economic theory, positive correlation was established between economic growth and telecommunications

penetration (Nxele & Aran, 2005). Keeping this discussion in mind, the aim of this study is to answer the research question; how technology resource is related with firm competitiveness? To find answer to this research question, the study examines relationship between technology resource strategy and competitiveness in telecommunication industry. More specifically, the study examines the relationship between the three dimensions of tangible and intangible technology resource strategy in line with traditional management (machine, manpower and methods) and competitiveness in Nigerian telecommunication industry for new better perception of technology resource strategy. On the basis of the reviewed literature, a conceptual framework has been developed between the technology resource strategy dimensions and firm competitiveness.

2.0 LITERATURE REVIEW

2.1 Nigerian Telecommunication Industry

At independence in 1960, the total number of telephone lines was only 18,724 for a population estimated at about 40 million between 1960 and 1985, the provision of telecommunication services in the country was also inadequate because of the capital expenditure needed (Akpoymare, Patrick, Salome & Victor 2014; Kovacs, 2013). As a result of that quality of both the internal and external telecommunication services was unsatisfactory and unsatisfactory situation had to do with equipment obsolescence, unreliable and congested lines, expensive service delivery and customer unfriendly services

(Akpoymare, *et al.*, 2014). In 1992, announcement was made known to public on the Nigerian Communication Commission Decree (NCCD) (Akpoymare, *et al.*, 2014). This decree turns out to be the primary legislation in leading the telecommunication industry (Oyejide, & Bankole, 2013; Alumni & Cornelius, 2013). This commission has been powered to issue license to any private telecoms operation in the country. Therefore, this commission was given the responsibility to oversee the affairs of telecommunication industry in Nigeria and prepare policies that will guide and improve the technical standard of telecomm servers. The NCC mobile license providers in 1996 after each of them have paid a fixed licensed fee for the kind of service they offered to the society (Alumni & Cornelius, 2013). The telecoms provider was ranged between the periods of 5-10 year duration of the license (Ndukwe, 2013). After that another keen interest was shown by the government, especially in the area of Nigeria telecommunication industry liberalization ((Alumni & Cornelius, 2013, Aid, 2015). The complete liberalization process Telecommunication industry therefore leads to intense competition among telecoms providers in terms technology resource in the sector till date.

2.2 Technology Resources

It is fitting to re-state that strategic management in an organization is based on the overall use of tools to strengthen their internal capacities, to improve the competitive advantage, to meet the requirements of the environment and to

reflect on a future, (Gimbert, 2010; Pérez & Carlos, 2016). Also Caicedo (2008), Fierro and Gutiérrez (2009) and Leon and Valenzuela (2014), stressed the existence of the set of positive aspects industries that indicate they are endowed with dynamic structural and organizational factors behind a broad range of technology innovation and management activities that are crucial for production and service processes. All organizations must plan the use of their technology resources, grading them by significance in the technology adaptation, acquisition, and/or generation process to define the technology course to be followed over the medium and long terms (Gutiérrez, Rebolledo, Ibarra, & Henneberry, 2008). This shows that it is essential to develop an organizational culture efficiently, which ensures the industry will stay at a technological level that is favourable for its business, modified to its own capabilities, as well as client demands. Therefore, Industries should bear in mind when analyzing the conditions that describe specific strategic options in decisions related to in-house technology development the resources available and its ability to acquire and/or generate other new resources for its competitiveness (Martín-Rojas, García-Morales & Mihi-Ramírez, 2011).

From the management point of view, organizational resources generally consist of a set of tangible and intangible resource firm has for meeting the objective of the organization (Hill & Jones, 2011; Sáez de Viteri Arranz, 2000; Ventura, 2008). Resource is any means that may be rated as a management strength or weakness (Pérez

& Carlos, 2016). For (Mantulak et al., 2016), resources are the production factors controlled by the company for developing strategies that enhance its efficiency and efficacy. From this same standpoint, Nuchera, Serrano, and Morote (2002) established the technologies related to the application of knowledge to the production of specific services and goods. Along the same lines, Sánchez (2005) noted that technology constitutes both knowledge and the outcome of its practical application. Moreover, when stating that in practice everything the company does requires some technology that is contained in both its core and support activities. Meanwhile, (Calantone, 2005) blended the concepts of resources and technology, affirming that technology resources constitute the set of tangible and intangible media available to the company and/or that it can access either internally (individual and collective capabilities and potential) or externally (current or potential stakeholders) for designing, fabricating, and selling its products or services, the use of information, and the management of all the functions that contribute to the materialization of its activities.

According to Pérez & Carlos, (2016) Technological resources are categorized into tangible and intangible; the tangible resource are: the main carriage, different types of machines, transport systems, products, etc, while the intangible are further classified as: knowledge and individual and collective skills, individual organizational routines, mastery of certain specific technologies, adaptation of machinery and / or equipment to improve

production efficiency. Consequently Technology resource can be classified into three (3) elements: machine (tools, structures and equipment), manpower (skills, expertise and knowledge) and method (relationship within and between manpower and machines in the process of performing both back office and frontline activities)(Ahmad et al., 2013). Technology resources are most at a time seen as either main or supplementary technology resource based on their competitive magnitude(Ahmad et al., 2013). Critical technology resources can be seen as former whose has directly devastating shock on industries as a result of absence/failure, in some instances, foremost to instant distraction of deeds. Therefore, Supplementary Technologies, on the other hand, are technologies that permit firms to do better than other rivalry firms and normally develop their performance towards competitiveness. When the competitive position is poor and does not automatically result to instant distraction of organizational activities it refers to absence/failure of supplementary technologies (Ahmad & Ahmad, 2006).

Technology resource are seen as tangible and intangible; between tangible are: the main carriage, different types of cutting machines, chipper, transport systems products, planer, moulder, team fungicide bath, conveyors wood waste, living sharpening tool room (Pérez & Carlos, 2016), and between the intangibles were identified: knowledge and individual and collective skills, individual organizational routines, mastery of certain specific technologies, adaptation of machinery and

/ or equipment to improve production efficiency, responsiveness to customer needs, through innovations, practices linked to environmental management and occupational safety (Pérez & Carlos, 2016). Based on the matters presented, agreement is reached with Castells and Pasola (2005) when they argued that technological assets analyses should not be a minor activity, as they underpin diagnoses of the current status, serving as of foundation for technology development strategies, as well as with (Mantulak et al., 2016), who believed that ongoing sustained enrichment of technological assets is achieved through introducing an organizational culture that buttresses creative thought and consequently the appearance of innovations.

Nevertheless, (Pérez & Carlos, 2016) warned about a management gap in coping with demands from the surrounding environment, facing the challenges of technological turbulence and establishing innovative development strategies, as senior management does not generally make good use of the expertise and creative flair of employees, with little interest in lowering internal and external barriers that block the efficient use of the available technological media. Consequently, it is vital that corporate directives use management tools that ensure comprehensive, overall definition of tangible and intangible technological media, while identifying internal and external hurdles hampering more effective use thereof (Mantulak et al., 2016). As expressed, it is vital to stress that the efficient use of technology resources may

be achieved only through effective strategic management, which builds up corporate technology assets in a comprehensive, integrated manner. Along these lines, Pérez & Carlos, (2016) noted that the leader of the business organization must ensure true technology resource management based on the deployment of six key functions: optimize, enrich, safeguard, inventory, assess, and oversee. The elements of Technology resource are machine (tools, infrastructure and equipment), manpower (technical skills, managerial skill expertise and knowledge) and method is the ability of an organization to perform its activities through the association between manpower and machines (Ahmad et al., 2013). According to Sietmann, (2017) Technological resources covers nine aspects; the first aspect is the origin of the assets, whether it is dependent or independent in its development process. Dependent means that firm totally depends on the external third party asset while independent means that firm has their own asset to develop its technology and both of this method has its own pros and cons (Jolly, 2012). The second criterion includes relatedness to core business which is defined by the relationship between the contributions of technologies implementation toward the company's core business. Applying appropriate technology to the core business is really important since it will directly give high impact on the production efficiency, improve the stability of production, raise the equipment operation rate, reduce consumption of products, and improve the utilization of waste materials (Zhang & Liu 2015).

Third criterion under technological resources also includes the experience accumulated by a firm in the certain technological field. When a firm have an experience and broad knowledge in the specific field is considered as important aspect in order to handle the technology because it will directly reflect the level efficiency of using the technological resources. The fourth criterion is about the pattern owned by the firm (Sietmann, 2017). A firm that patented their new technology is considered as a stronger firm as they can put obstacles toward others firm from access the resource for producing the technology. Firms are considered to gain competitive advantage since their invention on new technology has been patented. The fifth criterion of technological resource is the value of laboratories and equipment owned by a firm that emphasize about the expertise of R&D staff and its effectiveness in doing research.

Mulero, García and Rodríguez (2016) emphasises that having and R&D employee that has large expertise and know-how on certain aspect would lead to having a valuable outcome. The sixth and seventh criteria highlight about the selection either applied research or fundamental research that will be more expensive to develop a technology (OECD, 2005; Jolly, 2012) while the eighth criterion which is the development of team competencies. This is considered as most crucial part since it will show the successful of a technology (Jolly, 2012; Sietmann, 2017). Lastly is diffusion of technological knowledge in the firm. A

firm must have a knowledge and capacity on handling technology. Lin and Tang (2016) supported that knowledge is very important to improve intellectual capital to gain effectiveness in organizational performance. Therefore, the nine aspects can be summarised into manpower, machine and method.

Technology is related to the application of knowledge to perform organizational activities in terms of production of goods and service (Mantulak et al., 2016). Technology resources constitute the set of tangible and intangible media available to the company and/or that it can access either internally resource or externally resource for designing, fabricating, and selling its products or services, the use of information, and the management of all the functions that contribute to the materialization of its activities. Therefore, for the purposes of this study, internal technology resource strategies are considered.

2.3 Technology Strategy

In most cases, organizations must devise a strategy for its technological resources, in line with its corporate strategy as competitive strategy, according to possess one or more businesses (Castells & Valls, 2005). Technology strategy can be seen as organizational approach to the improvement and utilization of technology (Pérez & Carlos, 2016). Moreover, Suarez Hernandez (2003) and Castells and Valls (2005) emphasize the need to develop a technology plan that translated into actions, orientations and main concern for technology strategy, and also exploits the

use of technological heritage of the firm in line with its strategic objectives. Therefore, technology plan largely represents the set of actions to be executed in a given time frame, to ensure the required capacity for change in the organization to maximize the enjoyment of its technological heritage (Pérez & Carlos, 2016). Therefore, it is fundamental to assign strategic status to technology resources in the functional structure of industries as they form the cornerstone underpinning development strategies.

2.4 Competitiveness

Competitiveness is used in highly varied ways and is itself multiple dimensions (Alumni & Cornelius, 2013). Competitiveness by definition measures the relative performance of an organization but there are often deviating in meaning (Sölvell, 2015). The world is often used to assert that a firm can cut cost, improve quality, delivery service, flexibility, customer focus and know-how (Alumni & Cornelius, 2013). Therefore, competition is generally seen as the ability of a firm to offer product and service more effectively and efficiently than the rivalry firms (stiger, 2008). Competitiveness therefore, can be seen as the ability of industries in the surroundings to struggle at home and abroad markets while simultaneously organization market share improvement. Country wealth and citizens standards of living improve (Huggins, Izushi, Prokop, & Thompson., 2014) or as the set of firms, policy and factors that confirm the organizations' efficiency levels in a constituency (Sala-I-Martin ., 2014). Sölvell (2015) affirm that competitiveness for firms as the still advantages and uses

the term attractiveness as particular location advantages (Akpınar, Özge, & Mermercioglu, 2017). In the content of this study competitiveness will be reviewed in terms quality, cost, delivery/provision, customer focus, known-how and the flexibility.

Quality associated with performance and expectation, reliability, certification, and environmental concern (Phusavat, Kanchana, 2008). Costs focused on the ability to effectively manage operational cost, and other relevant features such as quality (Zhao, Yeung, & Zhou., 2002). Delivery/provision is related to time-based issues, and dealt with the speed that products/services are delivered or provided. Flexibility represented the ability to deploy and/or re-deploy resources in response to changes in contractual agreements that are primarily initiated by customers. The definition for this term was in line with Lau (Aranda (2003) and Kazan, Ozer, & Cetin (2006). Customer-focus concentrated on understanding and fulfilling customers' needs. It included after-sales follow up, customization, support, customer information, and dependable promise. Know-how dealt with the trends of decreasing products and services life-cycle (Phusavat & Kanchana, 2008).. As a result, the issues on knowledge management, creativity, and skill development were included (Zhao et al., 2002; Blanchard, 2004; Hsu & Turoff, 2007). Therefore, the RBV emphasizes strategic choice, charging the firm's management with the important tasks of identifying, developing and deploying key resources to maximize returns (Fahy, 2000). In summary, the characteristics and types of advantage-

generating resources; and strategic choices by management is the vital elements of the resource-based view in regard sustainable competitive advantage and superior performance.

2.5 Underpinning Theory

This study is anchor on Resource-based theory. The foundations of the resource-based view (RBV) of the firm can be found in the work by Penrose in the middle of the century (1959) that conceived the firm as an administrative organization and a collection of productive resources, both physical and human. This theory is applied to explain differences in competitiveness and performance within an industry (song, Droge, Hanvanich, & Calantone, 2005). According to Kraaijenbrink, Spender and Groen (2010), the Resource-Based View is one of the most cited theories in management discipline. The Resource-Based View stresses the internal aspects of a firm and suggests that there is a relationship between firm's competitive strategy and its accumulated resources (Das & Teng, 2000). Material resources, as well as human resources, can provide the firm a variety of services. The same resources can be put to use in different ways, according to the ideas of the firms on how to apply them. In this sense, there is a close relationship between the knowledge that people in the organization detain and the services obtained from the resources, so that firms are really repositories of knowledge. These capacities will traduce in most precise and better well define expectations of the future value of resources, than those presented by other participants in the resource market (Makadok, 2001). Conclusively, an alliance of technology resources and organization is required. Most

organization lacks emphasis on the internal resources such as manpower, machine and method resources within the same organization and the exceptional features and practices that may provide its main source of sustainable competitive advantage.

2.6 Technology Resource Strategy and Competitiveness

In this section, relationships among four dimensions of both tangible, intangible technology resource strategy and competitiveness are discussed. Ahmad et al.,(2013)conducted a study on technology resource and competitiveness in Nigerian Broadcasting Industry affirmed the manpower has significant impact on the competitiveness on a firm. Human resources contribute significantly to the performance of the firm. Human resources of an industry are the root cause of any technological development and automation (Shee & Pathak, 2005). These are the transporters of technological knowledge and disseminate it to the activities of an organization. The professionals well equipped with sound technical knowledge can contribute significantly to the performance of a firm (Shee & Pathak, 2005). According to Pérez & Carlos, (2016) who conducted a study on strategic management of technology resources in small companies manufacturing: case study in Argentina and indicated that proper management of small manufacturing companies is essential activate to those personal skills that contribute to the strengthening of strategic thinking in decision-making, in order to achieve a conduit to develop an integrated strategic vision that allows linking everyday decision making with the

objectives medium- and long-term business.

Technological features such as technology and R&D process, 'R&D and technology development contribute significantly to the performance intangible aspect of an industry (Shee & Pathak, 2005). The intangible performance of an industry means branding and goodwill, customer loyalty (repeat purchase), customer satisfaction, customer complaints, management credibility, and research/quality leadership (Shee, 2002). There are also other features, such as strategic planning, intangible resources, and implementation process, which are emphasized here for discussion. Method in Nigerian broadcasting industry is the most strategic technology resource driver for competitiveness(Ahmad et al., 2013). Significant positive relationships exist between all categories of IT resources from one side, and competitive advantage of firm from the other side. In another way, the results show no significant relationship between firm's age, type of industry, and the competitive of firms (Abdelkader & Abed,2016;).

Also, technology resources can improve efficiency performance but may not enhance financial performance directly (Abdelkader & Abed, 2016). Current study and findings on technology resource attributes and performance in international joint ventures in Malaysia shows strengthens significance in the resource-based view of competitive advantage (Ainuddin, Beamish, Hulland, & Rouse, 2007). Technology strategy significantly explained the difference on competitiveness of industry (Ahmad, et at.,

2009). The most significant driver of competitiveness strengthening the need for skillful manpower and internal infrastructure to hold new acquisitions in technology strategy is training, maintenance & exploitation policy (TMEP)(Ahmad, et al., 2009). Intangible resource and capabilities contributed more greatly to firm performance compared to tangible resource (Kamasak, 2017). Based on the review of selective literature on technology resource strategy issues as related to competitiveness of Nigerian telecommunication industry, the following hypotheses were formulated for the present study:

H0₁: there is no significant relationship between Manpower technology resource strategy and competitiveness.

H0₂: there is no significant relationship

between machine technology resource strategy and competitiveness.

H0₃: there is no significant relationship between method technology resource strategy and competitiveness

2.7 Conceptual Framework

Based on the forgoing review, a model is being proposed. This model explains the relationship among three dimensions of tangible and intangible technology resource strategy and competitiveness. The dimensions are measured with manpower technology resource strategy, machine technology resource strategy and method technology resource strategy towards competitiveness. Therefore, the model on figure 1 has to be empirically tested out for its feasibility.

Technology Resource strategy

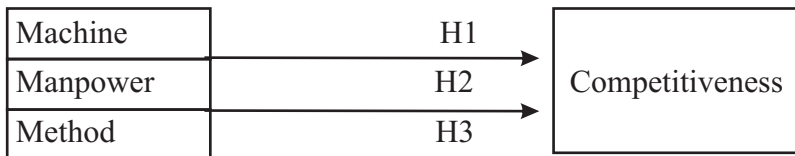


Figure 1: Proposed conceptual model for the study.

Source: Researchers (2019)

3.0 METHODOLOGY

The methodology used for this study was review of related literature on the concepts of technology resource strategy and competitiveness. References are based on databases online such as science direct, Sage, Emerald Web science and Google scholar. The review is limited to Technology resource strategy and competitiveness. References are only taken from journal articles, full text document and books. Consequently, limitation from this study could be due to

limited material from databases. The references are not restricted to Nigerian telecommunication industry taking also into cognition worldwide.

4. 0 ANALYSIS AND DISCUSSION OF S E L E C T E D R E V I E W E D L I T E R A T U R E

The table below shows some selected empirical literature that reviewed and analysed:

Table 1: Summary of Selected Reviewed Literature

S/N	Authors, date and Location	Research Title	Variables (IV, MODV, M EDV, DV)	Methods	Findings	Limitation and suggestion for further study
1	Sietmann, (2017)	Technology Assessment Need: Review on Attractiveness and Competitiveness	technology assessment, technology attractiveness, technology competitiveness	Review	Study Variable stated are provided to significant from literature review	Paper with no empirical data.
2	Kamasak, (2017) Turkey	The contribution of tangible and intangible resources, and capabilities to a firm's profitability and market performance	Firm performance, Emerging markets, Capabilities, Resource-based view, Tangible and intangible resources	A cross-sectional survey research design was used in the study. The modified version of Galbreath and Galvin's (2008) resource-performance questionnaire which included a total number of 45 questions was applied on 243 Turkish firms operating in different industries. The data collected were analysed by hierarchical regression analysis.	The findings revealed that IRs and capabilities contributed more greatly to firm performance compared to TRs. However, in contrast to the proposition of resource-based theory that views capabilities as the most important skills that underpin the development and deployment of both TR and IR, capabilities offered rather limited additional explanatory power to the prediction of firm performance only with respect to profitability against the combined effects of TR and IR.	The context-specific nature of firm-level resources. In all research, objective performance measures should be used where possible and available. the cross-sectional nature of the study provides a snapshot about the issue for a specific point in time but gives no indication of the sequence of events. what is captured and not captured with respect to resource and capability effects.

3	Mantulak et al., (2016)	Definition Procedure for Strategic Technology Resources in Small Manufacturing Firms: A Case Study	Manufacturing firms; small enterprises; technological resources	Non experimental research project was conducted through a descriptive study.	The progress of the survey also helped bridge the gap between academic theorization and corporate pragmatism, with specific input spurring local and regional development.	Future research projects to explore the impacts caused by the implementation of the procedure on the technology management indicators of small businesses in this sector.
4	Argentina.	Strategic Management Of Technology Resources In Small Companies Manufacturing: Case Study In Argentina	Technological resources; Strategic thinking; Small manufacturing companies.	Literature review and semi-structured questionnaires were used from interviews with entrepreneurs and survey of productive establishments.	As a result a model that supports the mechanics required to take advantage of technological resources strategically exposed from the revitalization of the strategic thinking of entrepreneurs	The case study in the small business segment
5	Abdelkader & Abed, (2016)	The relationship between information technology resources and competitive advantage in a sample of Algerian firms	IT Resources, IT Infrastructure, IT Technical and Managerial Skills, Competitive Advantage.	Using data from 30 Algerian firms and the Pearson Coefficient, the results indicate a significant positive relationship between IT resources and the competitive advantage.	the results show also a significant positive relationship between all categories of IT resources from one side, and competitive advantage of firm from the other side. Finally, the results show no significant relationship between firm's age, type of industry, and the competitive of firms.	limitations like using cross-sectional data, as consequence assessing the causality effects of IT resources and capabilities on competitive advantage of firms. Suggestions; Using longitudinal data, The case study is more suitable for studying a complex phenomena, Using the indirect models that best describe the relationship

6	Adi, (2015). Nigerian	An Evaluation of the Nigerian Telecommunication Industry Competitiveness: Application of Porter's Five Forces Model	Competitiveness, Efficiency, Growth, Telecommunication, Nigeria, Porter, Five Forces	Porter's five forces model of competitiveness to the Nigerian telecommunication industry context.	The study concludes that there is indeed high competitive pressure in the Nigerian telecommunication industry.	The study is limited to Porter's five forces model of competitiveness in telecommunication firm
7	Ahmad et al., (2013). Nigerian	Technology Resource Strategy and Competitiveness in Nigerian Broadcasting Industry	Competitiveness, Broadcasting, Machines, Manpower, Method, Technology Strategy, Nigeria	Against this background and building on a number of relevant theories/literature, scales were developed and statistically validated from 311 valid responses across professionals from Nigerian Broadcasting Industry.	Result indicated technology resource strategy significantly explained the variance on perceived competitiveness. Similarly, the research revealed that despite the importance of external uncontrollable factors, technology-dependent firms can significantly improve their competitiveness by concentrating on the internal controllable factors. Furthermore, beta coefficients indicated that all the Independent variables have unique significant influence on competitiveness in this order: method, machinery and manpower. The finding also supports key theories and literature.	The scales were largely subjected to exploratory factor analysis, hence, same result need to be replicated in other countries and/or industries before we start talking about TRE competitive model.
8	Calantone, (2005)	Marketing And Technology Resource Complementarities : An Analysis Of Their Interaction Effect In Two Environmental Contexts	Marketing, technology resource, Environmental contexts	SEM two-group analyses (with controls)	Results from SEM two-group analyses (with controls) show that both main effects positively impact performance in both environmental contexts..	Research suggests that the synergistic performance impact of complementary capabilities can be substantive in particular environmental contexts: while synergistic rents cannot always be obtained, it is possible to leverage existing resources through complementarity.

9	Ahmad, et al., (2009). Nigeria	Technology Strategy and Competitiveness in Developing Nations: Exploratory Evidence from Nigerian Telecommunication Market	Competitiveness, Developing Countries, Nigeria, Technology Strategy, Telecommunication	Principal component factoring and principal factor axis was run on 157 valid responses from Nigerian telecommunication industry to explore and confirmed the unidimensionality of the constructs. In addition, reliability analysis and constructs correlation provides evidence for constructs validity.	Technology strategy significantly explained the variance on organizational competitiveness. Furthermore Beta coefficients indicate training, maintenance & exploitation policy (TMEP) is the most important driver of competitiveness reinforcing the need for skillful manpower and internal infrastructure to accommodate new acquisitions in technology strategy.	Limitations that future research should address; the sample is biased towards GSM operators, besides the sample size ought to have been larger. Continuous licensing of telephone providers also negates absolute scientific sampling. Finally, scales were largely only subjected to EFA.
10	Shee and Pathak (2005)	Managing People and Technology for Enhancing Competitiveness: Software Industry Perspective	Technology management, software industry, India, global competitiveness	Questionnaire survey was conducted to study the technology and people issues in Indian software industry. linear regression test was carried out	Competitive performance of the firm depends on the technological knowledge of the software professionals.	Continuous training and up gradation of the work force to the latest technological development facilitates sustainable and easy operations. Infosys Technologies and HCL Technologies were examined to explore their technology and people issues as related to their competitiveness globally.

Based on the review of literature related to the relationship between technology resources and competitiveness, machine and manpower technology resources are less significant (Ahmad et al., 2013; Abdelkader & Abed, 2016; Pérez & Carlos, 2016; Shee & Pathak, 2005) while, method technology resources strategy (is deemed to be the more important and significant technology resources strategy in attaining and sustaining competitive advantage position because of their nature, being not only valuable but also hard-to-copy relative to the other types of tangible resources (i.e. physical and financial resources). Also, Training, maintenance & exploitation policy (TMEP) is the most significant driver of competitiveness that buttress and necessitate the skillful manpower and internal infrastructure to accommodate new acquisitions in technology strategy of telecommunication industry (Ahmad, et al., 2009). Therefore, based on conceptual and empirical reviewed literature, there is significant relationship between technology resource strategy and firm competitiveness. Also, technology resource strategy is the fundamental firm capability for attaining and sustaining competitiveness and eventually high performance of an organization.

5.0 SUMMARY AND CONCLUSION

The review above highlights the significance of understanding how certain elements (manpower, machine and method) are really vital in technology resource strategy and can be used as a conceptual guideline for

telecommunication industry in particular to enhance their competitive advantage position and performance through application and manipulation of identified internal technology resource strategy. The study developed a model for exploring the relationship between technology resource strategy (tangible, intangible and human resource) and competitiveness (quality, cost customer focus, flexibility, Know-how) that is helpful for future research in this area. Also, the study has provided new insight viewpoint on telecommunication industry and shifts the development of research from looking at the competitiveness and success factors to all angles which is recognizing factors to get telecommunication stand competitive. Theoretically, the review shows that the elements of three dimensions of tangible and intangible technology resource strategy are found to be important to telecommunication competitiveness. To prove this significant relationship empirical data is required. However, since the model has been proposed on the basis of reviewed literature, it needs to be elaborated and developed through systematic research. This study would help managers to manage their resource better by pursuing appropriate technology resource strategy and proper management of technology resource would benefit the organization. Therefore, the possible limitation related to this paper, is that it is a conceptual paper, there is no data collected to enable generalization to other countries and organizations.

REFERENCES

- . The relationship between information technology resources and competitive advantage in a sample of Algerian firms. *International Journal of Management* 7(3), 191–212,
- Ahmad, A., Ahmad, H., & Nyager, S., (2009). Technology Strategy and Competitiveness in Developing Nations: Exploratory Evidence from Nigerian Telecommunication Market, *Journal of International Business and Entrepreneurship*, 14(1) 1-16.
- Ahmad A, & Ahmad H., (2006). Technology Strategy in Perspective: International Conference of Technology and Operations Management, *Conference Proceedings*, Dandung, Indonesia 222-231.
- Ahmad, A., Hassan, A., & Yusuf, B. (2013). Technology Resource Strategy and Competitiveness in Nigerian Broadcasting Industry. *Proceedings of 12th international conference on business innovation and technology management*, Derby UK 1-3 July.
- Ainuddin, R.A., Beamish, P.W., Hulland, J.S. & Rouse, M.J. (2007). Resource attributes and firm performance in international joint ventures”, *Journal of World Business*, 42, 47-60.
- Akpınar M., Özge C. & Mermercioglu M. (2017). Assessing the sources of competitiveness of US states, *Competitiveness Review: An International Business Journal*, 27 (2) 2-34.
- Alumni, F.T & Cornelius, P.F (2013). Competitiveness in Nigerian telecommunication industry: Marketing strategy. *International Journal of research in commerce, IT Management*, 3(07) 9-14
- Aranda, D.A. (2003), Service operations strategy, flexibility and performance in engineering consulting firms, *International Journal of Operations & Production Management*, 23 (11), 1401-21.
- Blanchard, B. (2004), *System Engineering and Management*, Wiley, Singapore.
- Caicedo, A. C. (2008). Impacto de la gestión tecnológica en la competitividad de las PyMEs caleñas. *Entramado*, 4(1), 8–16. Cali, Colombia. Accessed February 2013. Retrieved from <http://www.redalyc.org/articulo.oa?id=265420384002>
- Calantone, R. (2005). Marketing and technology resource complementarity? an analysis of their interaction effect in two environmental contexts, 276, 259–276. <https://doi.org/10.1002/smj.450>
- Castells, P. E., & Pasola, J. V. (2005). *Tecnología e innovación en la empresa*. Distrito Federal, México: Alfaomega Grupo Editor.
- Das, T. K., & Teng, B. (2000). A Resource-Based Theory of Strategic Alliances. *Journal of Management*, XXVI(1), 31-61. <http://dx.doi.org/10.1177/014920630002600105>
- David, F. R. (2008). *Conceptos de administración estratégica*. Distrito Federal, México: Pearson Educación.
- Elegbeleye, O.S. (2005). Prevalent use of global system of mobile phone (GSM) for communication in Nigeria: A breakthrough in

- interactional enhancement or a drawback? *Vorcsftc Journal of African Studies* 14(2), 193-207.
- Fierro, J. O., & Gutiérrez, P. I. (2009). Diferencias en el proceso de innovación en empresas pequeñas y medianas de la industria manufacturera de la ciudad de Chihuahua, México. *Revista Contaduría y Administración*, 227, 9–28. Accessed February 2015. Retrieved from <http://www.scielo.org.mx/pdf/cya/n227/n227a2.pdf>
- Gutiérrez, H. G., Rebolledo, J. S., Ibarra, R. C., & Henneberry, D. (2008). Gestión de la innovación tecnológica en PyME's agroindustriales chihuahuenses. *Revista Mexicana de Agronegocios*, 12(23), 681–694. Accessed August 2014. Retrieved from <http://www.redalyc.org/pdf/141/14102312.pdf>
- Hill, C. W. L., & Jones, G. R. (2011). *Administración estratégica: un enfoque integral*. Distrito Federal, México: Cengage Learning.
- Hsu, J. & Turoff, M. (2007). Focusing computer training to user needs: the impacts of online and offline training on learning. *International Journal of Innovation and Learning*, 4 (5), 530-46.
- Huggins, R., Izushi, H., Prokop, D. & Thompson, P. (2014). *The Global Competitiveness of Regions (Regions and Cities)*, Routledge, Oxon and New York.
- Jolly, D. (2003). The issue of weightings in technology portfolio management. *Technovation* 23(5): 383-91
- Jolly, D. R. (2008). Chinese vs. European views regarding technology assessment: Convergent or divergent? *Technovation* 28(12): 818-30.
- Jolly, D. R. (2012). Development of a two-dimensional scale for evaluating technologies in high-tech companies: *An empirical examination Journal of Engineering and Technology Management*, 29(2):307-29.
- Kamasak, R., (2017). The contribution of tangible and intangible resources, and capabilities to a firm's profitability and market performance. *European Journal of Management and Business Economics*, 26(2), 252-275, <https://doi.org/10.1108/EJMBE-07-2017-015> Permanent link to this document: <https://doi.org/10.1108/EJMBE-07-2017-015>
- Kazan, H., Ozer, G. & Cetin, A. (2006). The effect of manufacturing strategies on financial performance, *Measuring Business Excellence*, 10 (1) 14-26.
- Kraaijenbrink, J., Spender, J. -C., & Groen, A. J. (2010). The Resource-Based View: A Review and Assessment of its Critiques. *Journal of Management*, XXXVI(1), 349-372. <http://dx.doi.org/10.1177/0149206309350775>
- Leon, J. G. M., & Valenzuela, A. V. (2014). Aprendizaje, innovación y gestión tecnológica en la pequeña empresa: un estudio de las industrias metalmeccánica y de tecnologías de información en Sonora. *Revista Contaduría y Administración*, 59(4), 253–284.
- Makadok, R. (2001). Toward a Synthesis of the Resource-based and Dynamic-capability Views of Rent Creation. *Strategic Management Journal*, 22,

- 387-401.
- Mantulak, M. J., Pérez, G. H., Michalus, J. C., José, M., Pérez, G. H., & Carlos, J. (2016). Definition Procedure for Strategic Technology Resources in Small Manufacturing Firms? A Case Study in Small Manufacturing Firms? A Case Study, 8526(August). <https://doi.org/10.1080/10978526.2016.1171674>
- Martín-Rojas R, García-Morales V & Mihi-Ramírez A (2011). How can we increase Spanish technology firms' performance? *Journal of Knowledge Management* 15(5): 759-78
- Mulero M, E, García V. T & Rodríguez C. V (2016). Measuring the effectiveness of R & D activities. *Management Decision* 54(2), 321-62.
- Navarro, K., Romero, E., Bauza, R., & Granadillo, V. A. (2006). Estudios sobre la gestión tecnológica y del conocimiento en una organización creadora de conocimiento. *Revista venezolana de gerencia*, 11(34), 262–276. Accessed March 2013. Retrieved from <http://www.redalyc.org/pdf/290/29003407.pdf>
- Ndukwe, E. C. A. (2003). An overview of evolution of the telecommunication industry in Nigeria and challenges ahead (1996-2003) (online) retrieved from www.ncc.gov.ng.
- Nxele, M. & Arun, T. (2005). Regulatory impact on the development of the telecommunications sector in East Africa: A case study of Kenya. Centre on Regulation and Competition, University of Manchester Working Paper Series, 09, 1-35.
- Nuchera, A. H., Serrano, G. L., & Morote, J. P. (2002). *La gestión de la innovación y la tecnología en las organizaciones*. Madrid: Ediciones Pirámide.
- Okoruwa, C. (2007). The Nigerian telecom revolution and economic growth, *Zenith Economic Quarterly*, (2)9, 40-46.
- Organization for Economic Co-operation & Development (2005). OECD in Figures: Statistics on the Members Countries OECD Publishing
- Palomo, A. Q. (2009). Desarrollo tecnológico de la pequeña empresa manufacturera. *Mundo Siglo XXI*, 15, 45–60. Accessed October 2014. Retrieved from <http://www.mundosisgloxxi.ciecas.ipn.mx/pdf/v04/15/05.pdf>
- Pérez, H., & Carlos, J. (2016). Strategic management of technology resources in small companies, *Strategic Management Journal*, 61–78.
- Phusavat, K., & Kanchan, R. (2008). Future competitiveness: Viewpoints from manufacturing and service providers. *Industry management & Data system* 108(2) 191-207.
- Sáez de Viteri Arranz, D. (2000). El potencial competitivo de la empresa: recursos, capacidades, rutinas y procesos de valor añadido. Investigaciones Europeas de Dirección *Economía de la Empresa*, 6(3), 71–86. Accessed July 2014. Retrieved from <http://www.aedemvirtual.com/articulos/iedee/v06/063071.pdf>
- Sala-I-Martin, X., Bilbao-Osorio, B., Blanke, J., Hanouz, M. D., Geiger, T. and Ko, C. (2014). The global

- competitiveness index 2014-2015: Accelerating a robust recovery to create productive jobs and support inclusive growth, in Schwab, K. (Ed.), *The Global Competitiveness Report 2014-2015: Full Data Edition*, World Economic Forum, Geneva, 3-52.
- Sánchez, E. F. (2005). *Estrategia de innovación*. Madrid: Thomson Editores Spain Paraninfo.
- Shee & Pathak (n.d). Managing People and Technology for Enhancing Competitiveness: Software Industry Perspective. *Journal of Transnational Management*, 11(1) 63-80
- Sietmann, R. (2017). Technology Assessment Need? Review on Attractiveness and Competitiveness Technology Assessment Need? Review on Attractiveness and Competitiveness. <https://doi.org/10.1088/1757-899X/215/1/012017>
- Sölvell, Ö. (2015). The Competitive Advantage of Nations 25 years – opening up new perspectives on competitiveness: *Competitiveness Review*, 25 (5), 471-481.
- Song, M., Droge, C., Hanvanich, S., & Calantone R., (2005). Marketing and technology resource complementarity: An analysis of their interaction effect in two environmental contexts. *Strategic Management Journal*, 26, 259–276
- Stigler, G. (2008). A theory of Oligopoly, *Journal of Economy*, 44-41
- Ventura, J. (2008). *Análisis estratégico de la empresa*. Madrid: Editorial Learning Paraninfo.
- Zane, L., & DeCarolis, D., (2016). Social networks and the acquisition of resources by technology- based new ventures *Journal of Small Business & Entrepreneurship* 28(3):203-21
- Zhang, R. & Liu, J. (2015). On the Core Competence of Chinese Manufacturing Industry under the New Formats of “Internet Plus”—A Case Study on Furniture Industry. *Journal of Service Science and Management* 8(6): 886- 93
- Zhao, X., Yeung, J. & Zhou, Q. (2002), “Competitive priorities of enterprises in mainland China”, *Total Quality Management*, 13(3), 285-300.

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ABSTRACT

The study investigated the effect of known financial planning for retirement on life of the retirees in Nigeria, with particular emphasis to the ministries and parastatals of the plateau state government. The research adopted inferential statistics to analyse the data collected. Regression model was used to test the hypotheses formulated. The statistical programme for social sciences (SPSS Version 25) was used to capture data and analysis of responses.

The findings of the study indicate that Since p value ($0.009 < 0.05$), we reject the null hypothesis and conclude that Inadequate planning significantly affect Post retirement. And Since p value ($0.001 < 0.05$), we reject the null hypothesis and conclude that lack of government involvement in the pre-retirement financial planning significantly affect Post retirement. Finally, Since p value ($0.001 < 0.05$), we also reject the null hypothesis and conclude that government restrictions on employees' involvement in entrepreneurship have significant effect on retirees financial planning for retirement.

It was recommended that i. financial Planning for retirement should commence on the date of engagement into the Nigeria public service .pre-retirement entrepreneur capacity development should be highly encouraged in the public service and government should prioritised area of specialty among employees.

ii. Government should set aside special fund for employees who are nearing retirement, to assist them in actualizing their business ideology with interest free loan backed by special monitoring team of government.

iii. Government should as well organise a training program for employees in the area of sustainable small-scale enterprises who have about 5years before retirement.

iv. Government restriction on employee's participation on business should be relaxed, especially employees who have 5years before retirement.

1.0 INTRODUCTION

Retirement is viewed in the developing countries like Nigeria as life threatening rather than a period of rest and comfort. The pension system in Nigeria is so pathetic that most employees neither have any meaningful retirement benefits nor earn enough during their working lives to cater for their retirement period (Awosike, 2009). In the public sector, statutory working age is 35 years of active service or 60 years of birth whichever comes first. But in the tertiary institutions and the judiciaries it is 65-70 years (CFRN, 2004 and UMPACT, 2004). This is with the belief that the 'older the wiser' in this sector. In Nigeria, retirees have always been left to fate, no matter where they had worked before. There is a clear evidence of retirees who died in queues while pursuing unpaid pension entitlements (Udofot, 2012). There are instances where Federal and state government are highly indebted to the retirees, subjecting them to abject poverty and frustration.

Despite several moderations of retirement benefits for workers in Nigeria, pension fund has been characterized by outright corruption and embezzlement, mismanagement and diversion of fund over the years (Ali, 2014). Financial Planning for Retirement consists of the series of activities involved in the accumulation of wealth to cover needs in the post-retirement stage of life. The negative short-, mid-, and long-term consequences of inadequate Financial Planning for Retirement do not only affect individuals, but also their extended families, homes, eventually

producing an unwanted impact on the entire society. (Choi, Jang, Erick & Koyemir, 2016).

It is crystal clear that society will not be able to guarantee quality of life in retirement unless people save on their own behalf including private (i.e., corporate) pensions leading governments to adopt increasingly active policies designed to involve citizens in Financial Planning for Retirement. More so, the delay in payment of pension and gratuities has brought untold hardship, frustration and death to many retirees, thereby making retirement phenomenon dreaded by workers. Ali (2014) assert that, the situation is so devastating to the extent of discouraging people who are still working and who are about to retire. As pointed out by Denga (1996), the uncertainty that characterized the retirement life saga is so worrisome that workers who are still in service for fear of the unknown, falsify their age and career records in order to postpone retirement date (Ali, 2014). But the above problems can be ameliorated if employees in the public service embark on proper financial planning for retirement while in active service. The problem is further compounded by the fact that post-retirement welfare of workers is not even a top priority of Nigerian government

Furthermore, workers themselves do not give early financial planning and management of post-retirement conditions significant priority. As a result of their unpreparedness many have faced lots of physical and mental disorder and some

exhibit inferiority complex (Ali 2014). Today, civil servants in both public and private sectors in Nigeria perceive retirement as most intractable problems (Abdullahi, 2002). Since the retired population are part of the society and considering the recent growth of population of the retirees, their welfare should constitute an issue of national importance and not to be treated as dead woods as is being done in Nigeria. Ali (2014) revealed that the need to cope with retirement life should be considered as a critical issue both by employers and employees, most especially where the retiree is a family-head. This is so because by circumstances of their position as family-head, they are more prone to face difficult situations in the context of the present depressed state of the Nigerian economy. Today that payment of pension is becoming disturbingly high, it has become necessary for employees to plan for their retirement early in their career because of sudden unexpected rationalization, high inflation rate, exchange rate volatility, mass unemployment and high economic uncertainties in order to avoid post-retirement years in poverty.

Problem of the Study

The Nigerian society has been enmeshed with serial problem of lack of retiree's preparedness and lack of government support by way of encouraging the employees for better retirement life this has left the retirees to wangle in abject poverty.

To this end the paper attempt to address the relevance of pre- retirement financial planning by civil servants, right from the

date of engagement into the public office having in mind that he will one day retire. Government on their own part should provide an enabling environment for employees to drive by way of welfare of its workforce both during their period of work and after their retirement.

Research Questions

The study is guided by the following research questions:

1. What are the effects of inadequate financial planning by the employees on their post Retirement years?
2. What is the effect of lack of government encouragement to the serving civil servants On their retirement life?
3. What hinders some civil servants from making adequate pre-retirement financial planning?
4. What effect does poor government remuneration has on entrepreneurship planning by employees in Nigeria.?
5. Does the constitutional restrictions of employees to engage in business, affect the employees from engaging in pre-retirement entrepreneurship planning?

Objectives of the Study

1. The study aims at finding appropriate measure through which employees can make Adequate financial planning for their retirement.
2. The study intends to uncover the implication of inadequate financial planning by employees for their retirement

3. The study intends to make suggestion to the government on her involvement in the Pre-retirement financial planning.
4. The study also intends to address and make suggestions on the government restrictions that hinders or scare employees from participating in active pre-etirement entrepreneurship planning.

Statement of Hypotheses

Based on the research questions and objectives of the study, the following hypotheses are formulated and stated in null form as follows:

\ H₀₁: Inadequate planning by the employees does not have any significant effect on their post retirement

H₀₂: Lack of government involvement in the pre-retirement financialplanning does not have any effect on the retirees

H₀₃: Government restrictions on employees' involvement in entrepreneurship does not affect the retirees financial planning for retirement.

Significance of the Study

This study will empirically contribute to the existing literature and it will serve as a reference material for academician who will want to develop on this study.

The findings will be as a supporting document for serving public servants as well as the retirees to guide them on how to plan effectively and efficiently for their retirement.

The study and findings will also serve as a working document for the government to improve on their retirement policies.

2.0 LITERATURE REVIEW

The Concept of Retirement

According to Buckley (1974) retirement is an inevitable stage of ageing where the individual gradually disengages from the main stream of active work, social work and is eventually replaced with younger ones. Also Cole (1997) see retirement as the time an employee reaches the end of his working life. Shea (1991) and Maisamari (2005) remarks that retirement is an aged long practice in both the private and public service. Many people especially those who never thought of retirement as a necessity often looked dejected frustrated and depressed when suddenly they found themselves retired.

The idea of retirement is of a recent origin, being introduced in the 19th and 20th centuries. The standard retirement age varies from country to countries but it is generally between 55 and 70 years. The restriction in the labour working age is to prevent an ageing labour force. Thus retirement is the act of an employee's official disengagement from a regular/permanent career job especially because the employee has reached a particular age. This will prevent an ageing labour force by allowing entrants of young- able-bodied labour for increasing efficiency.

In Nigeria, the statutory retirement age is dependent on the sector. For instance, it is sixty- five (65) years or thirty-five (35) years of active working service for staff of tertiary institutions other than professors. Those on the professorial cadre retire at the age of 70 in respective of years of service.

In the same vein, the non-professorial staff of tertiary institution retire at 65 irrespective of years of service. It is to be noted too that judges at the Court of Appeal and Supreme Court levels retire at 70 while those at the High Court level retire at 65. However, it's 60 years of age in other public service and private sector or 35 years of unbroken active service which ever come first (FRN,2004). However, the 35 years of active service is not applicable to workers in the private sector.

According to Oniye (2004), Whichever way retirement comes, it tends to emphasize separation from job with concern for the future. Retirement is indeed a period of withdrawal from active job of ones means of livelihood. Retirement is a fluid concept because it connotes different things and is fraught with different experiences for different people. We observe over time that retirement life is not a homogenous experience for everyone. While some individuals view it positively and anticipate it with nostalgia, others dread its eventuality with great anxiety.

Forms of Retirement

Retirement can be of different forms. In Nigeria, three major forms of retirement are identified (Omoresemi,1987;Denga,1996; Nwajagu,2007; Okechukwu&Ugwu ,2011). They are voluntary retirement, compulsory retirement and mandatory retirement.

Voluntary or self-retirement -occurs when the individual decides to quit active service for personal reason(s) irrespective of age, experience, length of service or retirement

policies. This type of retirement depends more on the employee than the employer.

Compulsory or forced retirement is a situation in which the individual is forced or compelled to retire against the individual's expectation and when he is ill-prepared for it. It is usually viewed negatively in that it is unplanned. Okechukwu and Ugwu (2011) identified reasons for compulsory retirement to include inefficiency, old age, ill-health, indiscipline. This retirement is in the interest of the organization.

Mandatory or statutory retirement is the normal (or expected form) in the sense that the person involved has reached the statutory age of retirement as specified in the condition of service of the establishment. For instance, in Nigeria the age is specified for other civil servants while judges and lecturers retire at 65 years or when an individual has put in 35 years of service. In Nigeria, the current retirement is guided by the Federal Government Public Service Rule (2008) which state clearly that:

- (I). The compulsory retirement age for all grades in the civil service shall be 60 years or 35 years of pensionable service whichever is earlier.
- (ii). No officer shall be allowed to remain in service after attaining the retirement age of 60 years or 35 years of pensionable service whichever is earlier.
- (iii). The provision of (i) and (ii) of the rule is without prejudice to the prevailing requirements for judicial officers and academic staff of tertiary institutions of

learning who retreat 70 and 65 years respectively.

It should be noted that retirement period is another period of a new learning zone. Public servants should see retirement not as an end of one's world rather the beginning of a new (another) phase of life. Many public servants look forward to retirement but not all get there. Therefore Public servants retiring on ground of age should be celebrated and treated as war veterans by the society and government.

Pension Benefits In Retirement

Previously, low life expectancy and the absence of pension arrangements meant that most workers continued to work until death (Wikipedia,2011). In modern times, with improvement in life expectancy rate and available labour supply, most countries have involved systems that now define standard retirement age and provide pensions on retirement. According to Toye(2006), pension is simply the amount set aside either by an employer or an employee or both to ensure that at retirement there is something for employees to fall back on as a guaranteed income for them or for their dependants. Pension and gratuities are schemes which provide for the finances for the upkeep of the retired staff throughout the rest of their lives after work. In Nigeria payment of pension benefits to workers in the public service is the sole responsibility of the government. So, that at old age, a retiring worker will not be stranded financially. This practice assists the retirees to readjust properly to the society after leaving employment.

Balogun (2006) affirms that Nigeria had her first Pension Scheme in 1951. The colonial British administration established this by the instrument they called Pension Ordinance. The introduction of this Pension Scheme had a retroactive effective from 1st January, 1946 and applied only to United Kingdom officials posted to Nigeria. By implication, this pension scheme was not automatic to Nigerians. Since that time, Nigeria had had about eight(8) registered Pension Schemes that is characterised by outright corruption and embezzlement. The pensioners had to cry out loud in streets and mass media for a positive change (Obi,2002). Thereafter, The Pension Reform Act 2004 was enacted on 25th June,2004 and became effective on 1st July,2004 to redress the corruptible practices in the scheme and to assist the pensioners cope with the changing economic and political process in the country.

It may interest you to know that the introduction of the Contributory Pension Scheme (CPS) in Nigeria in 2004 has its origin from Chile and its Latin American neighbours that personalized pension to the contributor and managed by licensed private sector entities. So far, Nigeria is the first African country to introduce a variant of the Chilean system with flavours of African peculiarities (Musibau,2012). Under the new contributory system, the employees contribute a minimum of 7.5% of their basic salary, housing and transport allowances and 2.5% for the military. Employers shall contribute 7.2% in the case of the public sector and 12.5% in the case of the military. Similarly, employers

and employees in the private sector are expected to contribute a minimum of 7.5% each. One of the opportunities of the CPS is that participants are allowed to open individual Retirement Saving Account (RSA) where contributions are accumulated till retirement. The scheme also permits members to make voluntary contributions as additional percentage of their salaries into the individual capitalized account. The mandatory requirement that Pension Fund Administrators (PFAs) provide regular/periodic statement of account to RSAs holders ensures close monitoring of accounts which could also guarantee quick report of errors and prompt correction of such errors. Nigeria decided to adopt the Chilean version of CPS in order to cushion the heavy financial burden on the government in payment of previous retirees' pension benefits. In order to facilitate this restructuring, the prevailing Contributory Pension Reform Act 2004 has a central regulatory body, called Pension Commission (PENCOM) to oversee all pension matters nationwide. Fapohunda (2013) observed that despite several moderation of pension schemes, the management of pension scheme in Nigeria over the years has been characterized by multiple and diverse problems such as inadequate funding, poor documentation and filing in the pension office, accumulated arrears of pensioners, inability to determine the appropriate investment portfolio, lack of accountability, corruption and embezzlement of funds among others. It is noted that some states in the country are yet to join the on-going Contributory Pension Scheme (CPS). Reports emanating from

the Pension industry in Nigeria revealed that 28 out of the 36 states are yet to subscribe to the CPS, a decade after introduction, even though it is mandatory for all employers of labour on formal platform (Vanguard,2014). This suggest lack of confidence on the part of employees arising from failures of previous similar government policies. Added to this is the fear of continuity and sustainability by successive governments since new government in Nigeria have been known to jettison previous programmed midway to start another similar one.

Financial Planning for Retirement: A Psychosocial Perspective

From a societal standpoint, population aging in the developed countries has intensified pressure on public pension systems ([Annink et al., 2016](#)). It is crystalclear that society will not be able to guarantee quality of life in retirement unless people save on their own behalf including private (i.e., corporate) pensions leading governments to adopt increasingly active policies designed to involve citizens in Financial Planning for Retirement. Financial planning for retirement consists of the series of activities involved in the accumulation of wealth to cover needs in the post-retirement stage of life. It is necessary because of the high, mid- and long-term, negative impact of poor planning ([Choi and Jang, 2016](#); [Ekici&Koydemir, 2016](#)). At the same time, this activity is complex for several reasons. Firstly, most people do not possess the necessary knowledge to make optimal savings and investment decisions.

Secondly, individual planning is subject to many factors, such as income, professional career, or health, which, moreover, interact with each other. Thirdly, people may experience anxiety and develop negative attitudes toward contemplating the latter stages of life and planning, ultimately avoiding financial planning for retirement. FPR was initially treated as a matter exclusively for economists, accountants and financial advisors. More recently, economists have found “a set of coherent explanatory constructs” useful to understand economic behavior ([García-Gallego et al., 2017](#), p. 848) in psychological concepts. At the same time, in psychology, the importance of finances in retirement was admitted ([Topa et al., 2011](#)). Academics have progressively incorporated variables from other disciplines in their empirical studies, accumulating evidence for integrated models of retirement planning ([Wong & Earl, 2009](#); [Wang & Shultz, 2010](#)). A wide range of personal resources has been explored as relevant predictor of successful adjustment to retirement ([Leung & Earl, 2012](#)). Despite this, empirical research on FPR has increased either without a theoretical model or with more general models, like the Theory of Reasoned Action.

In 2013, Hershey, Jacobs-Lawson, and Austin proposed a conceptual framework called the “Capacity-Willingness-Opportunity Model” to understand FPR. This model is promising for three reasons. It is specific, because it is designed to explain FPR. It is broad because it includes three dimensions with different types of

variables. And it is procedural because it incorporates a temporal dimension, analysing age and stage, and their interaction with the other facets of the model. As previous research suggested, different patterns of change should be considered when examining retirement outcomes ([Wang, 2007](#)).

Three dimensions—capacity, willingness and opportunity to plan for retirement—were proposed by Hershey and his colleagues in their model. Capacity refers to the cognitive factors and skills required to plan and save for retirement, distinguishing one person from the next. Among others, one's knowledge, skills, fluid, and crystallized intelligence, and psychological biases would likely influence the ability to plan and save ([Resende & Zeidan, 2015](#)). Meanwhile, willingness consists of the motivational variables that drive planning activities and saving. Hence, this dimension includes the motivational forces and the attitudinal and emotional factors that determine the likelihood that a given individual will begin planning and will sustain the activity over time. These factors are, among others, clarity and nature of one's financial goals, retirement-related fear and anxiety, perceived social norms, and self-image could be linked to the tendency to plan and save. Finally, the opportunity dimension acknowledges the existence of certain external influences, including environmental facilitators and constraints that affect effective financial tasking. Among others, the availability of voluntary retirement saving programs, tax incentives for saving, and financial

advisors in the proximal environment would be associated with the tendency to plan and save.

Taken as a whole, the model is procedural. This means that the model holds a main assumption related to the continuity and strengthening of FPR during the course of adulthood. This turns our attention to the role of age in Hershey's model, which is somewhat complex. On the one hand, the continuity assumption implies that a stable pattern of entrenchment of capacity, willingness, and opportunities to plan and save could be expected.

It becomes a habit. Development of the value of FRP, like saving in general, is in part based on a person's ability to delay gratification for a long-term goal or dream. On the other hand, this pattern of continuity is not immutable. At least three types of influences could lead to changes in FPR: normative age-related influences, normative history-related influences, and non-normative life events. Based on normative age-related influences, workers around 55 years old become more interested in financial planning than younger workers. In Europe, history-related influences could be exemplified by the pension system reform, which increased the population's awareness of the sustainability of future pensions. Finally, non-normative life events, such as major health problems, could interfere with FPR. Elimination of mandatory retirement age in various countries has changed a key benchmark of retirement. The development of a portfolio of part-time jobs and choosing which jobs need to be financially compensated opens

new possibilities to reframe the concept of retirement. With lengthening of the years of quality and active living, people are searching for meaning and purpose beyond subsistence in the latter stages of life.

The empirical evidence supporting this model still is fragmentary and insufficient. Despite the fact that there is more than a decade's worth of empirical works that have examined partial aspects of the model (., [Hershey et al., 1998, 2007](#); [Hershey & Mowen, 2000](#)), there are no works that test the complete model. Emerging investigations in this regard have begun to appear ([Jiménez et al., in press](#)) but they can be clearly improved in design and data collection procedures ([Topa et al., 2017b](#)). The evolution of one's life can be interpreted through the intentionality shown about adaptation, learning, and change. This is explained in Intentional Change Theory (ICT; [Boyatzis, 2008](#)). In this theory and the longitudinal research over the last 50 years about it and its components, explains that the first key discovery on the path to sustained, desired change is articulating a personal vision, or dream. This is not a set of goals, but something bigger and with a longer term framework. It is developed from the question, "If your life were perfect 10–15 years from now, what would your life and work be?" In contrast to goals or elements others have told you should be part of your future, your personal dream invokes neutral networks, hormonal systems and psychological states that open the person to new ideas ([Boyatzis et al., 2015](#)). Other key elements in ICT are the resonant, trusting relationships that enable a person

to explore and refresh in an interactive manner their dream and progress toward it. The role of such coaches or trusted advisors are another element key to a person developing a desired image of the latter stages of life and/or retirement, and an appropriate financial retirement plan.

THEORETICAL FRAMEWORK

Theories that are relevant to the subject matter of the study. A framework that guided the study was located in these theories. The theories explain the socio-economic adjustment strategies employed by people in their bid to adjust to socio-economic changes in people's lives and society. These theories are:

- i. Activity theory
- ii. Conservation of resources theory
- iii. Multiple modes of livelihood approach

The three theories approach the issue of human existence and socio-economic well-being from a drive tailored towards active involvement in economically sustainable pursuits.

Activity theory

Activity theory was propounded by Robert Havighurst in 1961 in reaction to disengagement theory. This theory stands on the premise that elderly individuals experience utmost happiness when they actively engage in meaningful social interaction and activities. In this way, older people remain active members of society as they age gracefully. According to Vicky (2015), elderly people could engage in either scholarly or physical activities, as long as they are kept active as they get older. Activity theory focuses on the social

life of older people, without emphasis on economic gains as a goal. It aims at keeping people agile, healthy and with a satisfying self-image in their later lives. The theory encourages older people to afford themselves the opportunity of locating alternative roles they could utilize to remain agile social beings, both for their benefit and that of the entire society.

It is not surprising, for instance, to see a retired teacher taking up a new job in a private school as school administrator or head teacher. It is common in Nigeria to see a retired lecturer taking up appointment as a teacher in a private university. A retired banker could work as a consultant to a firm. Some other retired individuals take to private activities like operating a poultry or fishery farm, running laundry services, petty trading among others. Some get involved in charity organizations. Activities such as voluntary services in community-based projects and involvement in religious activities are also encouraged among old folks (Ali, 2014; Garba & Mamman, 2014). Before the Nigerian Civil Defense Corps became fully institutionalized as a security agency of the state, some retired men joined their service as volunteers to stay active. Rather than retiring to fate, waiting for death, the involvement of elderly people in active lifestyle after retirement could also help to prolong their lives and produce satisfaction with and in life. The purpose may be divergent from earning income, but also to help them remain active participants in the society. Such active lifestyle has a positive relationship with fulfillment in and satisfaction with old age.

This would serve to get them integrated in social activities as they experienced them in their middle ages.

Activity theory has been criticized, however, for neglecting the aspects of differential health and socio-economic status among elderly individuals, which could curtail active living if negatively predisposed to. Also, the adoption of a single variable like activity or disengagement in addressing issue of stress was criticized for simplicity. This notwithstanding, it has been observed that older people who are actively involved in social activities tend to be happier and healthier (Ali, 2014; Moody & Sasser, 2012; Oniye, 2015).

This theory is in agreement with the argument put forward by Moody and Sasser (2012) that retirement should not be abrupt. Rather, room should be given to elderly ones who desire to work longer than usual. Akpanmkpuk (2011) maintains that retirees must be engaged in activities that could keep them fit and healthy. Quadagno (2005) advocates phased or bridged retirement so as to eliminate the feeling of hopelessness. She also argues for labour participation of retirees either in the form of re-entrance into the labour market or community services through voluntary services. Although some of the scholars who argued for the participation of older people in work activities did so for the economic undertone, such activities no doubt could help these people to remain active, relevant and satisfied as activity theory posits. None of the studies reviewed argued in favour of disengagement from

sociable lifestyles in later years. The health and social implications of total cessation of work and active living was particularly identified by Garba and Mamman (2014). They recommend that retirees should get involved in social activities like community services, religious groups, visiting friends, travelling and always be in high spirit. Ali (2014) also advises retirees to be active by engaging in choice vocations, cultivating habits that involve moderate exercising and work at moderate levels because of their age and in order to keep fit.

Conservation of resources theory

This model was developed by StevanHobfoll in 1989. The Conservation of Resources theory (COR) argues that human beings worry over factual and observed threats. Therefore, they work towards acquiring and retaining prized resources. These resources refer to anything people perceive as valuable.

They could be in the form of:

- **Objects:** - These include food, clothes, house, investments;
- **Conditions:** - Like employment status, reputation, good health, leadership position;
- **Personal Characteristics:** - These include self-confidence, self- esteem, skills; and
- **Energies:** - Which include money, acquired knowledge, and time.

The purpose for the acquisition and retention of these resources is to be able to counter threats, especially in the near future. Therefore, these resources serve as

leverage (Moss, 2008). These resources are valued as either avenues for gaining access to means of survival or they are in themselves the actual survival needs. Effort is intensified to protect the resources in hand while at the same time, seeking ways of acquiring more resources.

Alvaro, Lyons, Warner, Hobfoll, Martens and Labonte (2010) identified three themes in COR for the purpose of their study on health system change in areas with limited or inadequate resources. These themes are also relevant to this study. The first theme argues that resources are needed for adjusting to changes that occur in any system. For the purpose of this study, the resources available to each retiree, as highlighted above, determine the ease or otherwise of transition from work roles to retirement and old age status. Therefore, as a social group, retirees' socio-economic adjustment is directly proportional to the resources at their disposal based on the tenet of conservation of resources theory. This theory did not prioritise the resources in order of hierarchy.

The second theme posits that perceived threat to resource loss triggers protective actions in the direction of assets. Hobfoll (1989) argues that people experience stress when there is a perceived danger to resource or asset loss and when they actually experience resource loss. The fear brought by either of these scenarios prompts them into action to make effort at acquiring more and strive to maintain resources, thereby shielding their resources from potential and actual loss. This premise is in line with advocacy for

pre-retirement and post-retirement planning and education. To eliminate potential or actual loss of economics (embedded in objects and energy resources), retirees have been advised to save as much as possible and invest in certain income-generating assets while in service (Beehr, & Adams, 2003; Adewuyi, 2008; Akinade, 2011; Ali, 2014; Akpanmkpuk, 2011; Garba&Mamman, 2014; Quadagno, 2005). Also, to guard against loss of personal characteristics and conditions resources, retirees have been counseled in addition to financial planning, to imbibe healthy habits like moderate regular exercise and eat balanced diet (Ali, 2014). They should keep their spirit high at all times, join religious and social groups in their communities (Garba&Mamman, 2014) and carry out routine medical check-ups (Ali, 2014). The possibility of opting for phased or bridged retirement and extending their service by remaining in paid employment beyond the normative retirement age, where it is allowed, could also be harnessed (Moody & Sasser, 2012; Quadagno, 2005).

Furthermore, people who have access to limited resources are also susceptible to losses and often find it difficult to expand their resources. They therefore work towards conserving the resources accrued to them rather than taking risks that could drain the little they have. Studies have shown that women are less financially buoyant due to income disparity between them and the male folks. It has also been established that they rather save for investment in their children (long-term investment) whom they perceive as their

future assets (Fapohunda, 2015; Miller, 2016). Little wonder that they do everything at their disposal to see to the upbringing and welfare of their children. Actions taken by women in this regard include quitting paid jobs to rear children and taking up part-time employment to be able to have time for their maternal roles. Fapohunda's (2015) study shows that many women rely on their children for old age care and welfare. In the same vein, many of them have their care-giving ambition of tending their grandchildren at old age. So, their resources are conserved primarily to taking care of their children, who in addition to the anticipated grandchildren, are seen as their ultimate resources that must be protected and guarded against loss. Women are risk-averse to any venture that fails to guarantee the preservation of this particular object resource.

The last theme argues that resources need be heightened and boosted for adaptation. Hobfoll (1989) argues that the loss or possibility of loss is stressful to human beings. Howbeit, Bakker and Demerouti (2007) add that the loss of a resource leads to more stress than the attainment of resources produces positive feelings. In other words, people fear loss more than they admire gain. The fear of loss spurs people to act to avert it than potential gain causes them to pursue accordingly (Alvero, Lyons, Warner, Hobfoll, Martens, & Labonte, 2010; Bakker & Demerouti, 2007; Farinella, 2012; Moss, 2008). Boyce, Wood, Banks, Clark & Brown (2014) sought to test the validity of Hobfoll's assertion on level of sensitivity to gain and loss, the result shows that income

gain attracts minimal improvement in psychological disorder. However, a unit decrease in earnings shows a substantial rise in psychological disorder. To this end, Hobfoll's conservation of resources theory's position that there is need to invest resources in order to gain more resources and eliminate potential and real loss of assets is infallible. This step is more critical to individuals who are challenged in terms of access to resources and consequently, vulnerable to its loss. Sadly, people in such category as argued by Hobfoll, (2010) are often afraid to risk the resources they have to gain more. By making use of the resources at their disposal and those available within their environment, people would be able to make up for certain lack of resources being experienced (Alvaro *et al.*, 2010).

In application, this is what retirement planning advocates. It anchors on the need for workers to invest part of their income in preparation for the years when work would have ceased and decrease in income becomes inevitable. Akpanmkpuk (2011) asserts that waiting till retirement before investing in gainful ventures would definitely be too late. There is need for other stable means of income before an employee retires. The proceeds or gains from such investment would stand to replace the loss of income. In this way, imminent loss that is usually negatively weighty on people's psychosocial well-being would be averted (Bakker & Demerouti, 2007; Beedie, 2015; Miller, 2016). This theory, however, did not give explanation to the attitude of amassing wealth at the detriment of other people or

employees, which is usually seen in the activities of employers of labour in a country like Nigeria.

Multiple modes of livelihood approach

Multiple modes of livelihood (MML) as put forward by Abdul Raufu Mustapha in 1991, is the third approach to explaining the nature of adaptability employed by Nigerians. Chambers and Conway (1992) conceptualized multiple modes of livelihood in the following way:

A livelihood comprises the capabilities, assets, (stores, resources, claims and access) and activities required for a means of living: a livelihood is sustainable which can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generation; and which contributes net benefits to other livelihoods at the local and global levels and in the long and short term (in Carney, Drinkwater, Rusinow, Neefjes, Wanmali & Singh, 1999, p. 4)

From the above definition, livelihood is a coping strategy employed by individuals, a group or society to eliminate or alleviate stress. According to Mustapha (1991), multiple modes of livelihood refer to means households devise for the purpose of survival during periods of economic insufficiency, pressure and hardship. They are means employed by people to gain additional earnings through additional jobs or other ventures.

The basic tenets of this approach are:

- i. Means of generating additional earnings to augment inadequate income;

- ii. Multiple modes may not all be legal; they could include criminal and quasi-illegal practices. Examples include, prostitution, drug trafficking, smuggling of goods, avoidance of taxation by business owners among others;
- iii. Pervasiveness of technological changes and economic crunch around the world have intensified the need for multiple modes of earning as people struggle for relevance and survival; and
- iv. In the Nigerian context, multiple modes of earning for sustenance go beyond individuals and societies. Corporate organizations have imbibed the culture of seeking out other means of generating funds for continuous existence. For example, many corporate organisations in Nigeria do launch different kinds of products, go into farming and other areas to either boost their customer base or increase earnings.

The approach argues that the factors that triggered the adoption of multiple modes of livelihood in Nigeria are the rate of unemployment and inflation, which Mustapha insists are the by-products of the Structural Adjustment Programme (SAP) of 1989. He, nevertheless, agrees that this approach has always been in the nation's economic system but the intensity was aggravated by the introduction of SAP. He further argues that the country is yet to recover from it after three decades.

According to Owusu (2001), salaries (and

by extension, pensions) are grossly inadequate to offset people's bills due to inflation. In the implementation of this model, every avenue available to individuals and groups is harnessed to gain more earnings. Nevertheless the dynamics of execution differ across location, social class/status (i.e professionals, working class and artisans, youths and others) and economic impetus. For instance, professionals have better access to economic and political resources (i.e. objects, conditions, personal characteristics, and energies resources). The availability of resources dictates modes of earnings the social classes engage in. For example, modes adopted by most of the working-class individuals and artisans are labour intensive due to limited access to resources. More importantly, intention for the adoption of multiple modes of earning for living by these classes of people differs. For the professionals, the aim is to accumulate more resources, improve on the existing ones or at the worst maintain their status quo, while for the working class and artisans; survival is the target (Mustapha, 1991; Owusu, 2001).

By application, multiple modes of livelihood approach helps to explain the concerns of workers in relation to the economy as they envisage their retirement. The necessity of planning adequately for the rainy days through the utilization of different and multiple means of increasing one's income for the purpose of post-retirement and old age survival is captured by this approach. It helps to explain why many retirees are involved in different income generating ventures at the same

time. Adewuyi (2002); Akpanmkpuk (2011); Goodman (2013); Madu (2014); Nweke (2015); Okonkwo and Nwosu (2015) and many other Nigerian scholars have studied the effects of the prevalent economic repression and have advocated the adoption of multiple modes of earning a living for retirees. Some of the opportunities available to retirees for added income include farming (for example, food crops, fishery, poultry, goat farming among others), establishment of schools, vocational training centers supporting sewing, knitting, baking, events planning and more, consultancy services, investment in landed property, opening supermarkets, laundry services, and others.

Retirees and civil servants in Nigeria engage in two or more of these modes. For example, in rural and some urban areas, civil servants engage in food crops farming either for consumption or commercial purposes. Akpanmkpuk (2011) maintains that retired individuals could take to farming in livestock and food crops and still have a retail shop. Quadagno (2005) explains that since the elimination of the earning test for social security recipients in the United States, retirees and elderly persons could earn their social security benefits and at the same time, engage in some other jobs to earn more. These propositions and evidences support the premise on which multiple modes of livelihood stands.

Nonetheless, this approach has been queried for neglecting the important position of power and politics and for not

relating livelihoods to leadership in the context of development (Scoones, 2009). It has also been criticized for being a short run solution to environmental forces. It lacks attention on long term environmental issues like climate change that is becoming particularly worrisome in Africa, the main base of the adoption of multiple approaches to earning a living. These criticisms notwithstanding, the model helps to explain the contemporary modes of survival in Africa as a whole. Scoones (2009) also counters the criticisms on the ground that multiple modes of livelihood theory is essentially propounded to address micro-economic condition as it is today especially in Africa. Other theories would be needed to tackle macro-economic shortfalls as identified by critics, he asserts.

Points of Congruence among the Theories

As earlier pointed out, the three theories: activity, conservation of resource, and multiple modes of livelihood outline actions (activities) carried out by people under certain socio-economic circumstances. They are all action-based theories. They are in total dissonance with disengagement under the guise of retirement and in the face of imminent economic and social crises. They all spur people to action under changes that seem worrisome. Therefore, the three theories are activity theories.

Brief Review of Empirical Studies on Related Topics

Different scholars have formed their opinion on financial planning for retirement. A similar study was conducted in Zambia, Robinson&Chisa,(2016).it

reveals a lack of preparedness as well as lack of entrepreneurial knowledge and poor planning for retirement life among retired teachers

Ali (2014) conducted a research on managing post retirement in Nigeria and concluded that retirement is a sine qua non in the life of every public officer. Therefore, necessity rests on every employee to begin to consider the passionately since life at retirement can be blissful or painful depending on the level of preparedness and planning.

In USA, Toba, Gregg&Boyatzis (2018). Financial planning for retirement: A psychosocial perspective. Concludes that coaching people to their personal vision would help create a hopeful financial planning for retirement as well as voluntary participation in training programs, which in the long-term guarantee updated skills for older workers, Sousa-Ribeiro et al (2017) In Malaysia& Folk(2012) Influence of financial education on retirement preparation. The study reveals some demographic characteristics as significantly related with various personal financial well-being measures. In addition it also shows close relationships between respondents' financial preparedness (both calculated and perceived) and their age, education level, and investing habits.

METHODOLOGY

The study adopted survey design to determine the effect of known financial planning for retirement on life of the retirees in Nigeria, with particular emphasis to the ministries and parastatals

of the plateau state government. The sampling was randomly conducted based on the number of questionnaires distributed to the retirees and those near retirement in the ministries and parastatals of plateau state government.

Analysis method

For the purpose of this research, inferential statistics was used to analyse the data collected. Regression model was used to test the hypotheses formulated. The statistical programme for social sciences (SPSS Version 25) was used to capture data and analysis of responses.

The formula for regression model.

$$\text{post-retir} = \alpha + \beta_0 (\text{Inadq-Plan}) + e. \dots 1$$

$$\text{Ret} = \alpha + \beta (\text{Gov-Invl}) + e. \dots 2$$

$$\text{Ret-Plan} = \alpha + \beta (\text{Gov-Rest}) + e. \dots 3$$

Where:

Post-Retir = Post retirement

Ret = Retirees

Inadeq-plan = Inadequate planning

Gov-Invl = Lack of government involvement in the pre-retirement planning

Gov-Rest = Government restrictions on employees' involvement

α = Intercept

β = Beta

e = Error term

Decision criterion is to accept H_0 : if p value is greater than 0.05 level of significance.

4.0 DATA PRESENTATION AND ANALYSIS

4.1 Data Presentation

Out of 541 copies of questionnaire distributed to various respondents in the sample ministries and parastatals, 513 were responded to and retrieved while 28 were not responded to and therefore not retrieved.

Distribution of questionnaires

Ministry of works	84	75	9	84
Ministry of information	17	17	-	17
Ministry of commerce	15	13	2	15
Ministry of Health	24	20	4	24
Ministry of finance	23	23	-	23
Ministry of Agriculture	33	30	3	33
Ministry of Education	32	31	1	32
Ministry of Justice	17	17	-	17
Hospital management Board	64	55	9	64
	309	281	28	309

Sources: Plateau State Statistical Agency

4.2 Data Analysis and Discussion of Findings

Hypothesis One

H_{01} : Inadequate financial planning by the employees does not have any significant effect on their post retirement.

Table 1 Model Summary for Hypothesis One

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.721a	.677	.525	85474154.54	2.51

a. Predictors: (Constant), Inadequate financial planning

b. Dependent Variable: post-retirement

Source: SPSS version 25 output.

Table 5 Coefficients for Hypothesis One

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	541416329	41023109		2.210	.001
Inadequate planning	4.141	3.210	.671	3.21	.009

a. Dependent Variable: post-retirement

Source: SPSS version 25 output.

Interpretation of Hypothesis One Analysis

R Square explain the relationship between variable. As shown in the model summary, the relationship between Inadequate financial planning and Post retirement is about 67%. R being the determinant of correlation explains the extent to which the independent variable could explain the dependent variable. R square as shown in model summary is about 72%, this implies that the independent variables can predict or determine dependent variables up to 72%. This simply means that the ability of planning to determine Post retirement life style is about 72%.

This study revealed that a unit change in financial planning account for about 4.14-unit change in Post retirements life style. This study revealed that Inadequate financial planning has a significantly effect on Post retirement.

Decision

Since p value ($0.009 < 0.05$), we hereby reject the null hypothesis and conclude that Inadequate financial planning significantly affects Post retirement.

Hypothesis Two

H_{02} : Lack of government involvement in the pre-retirement financial planning does not have any effect on the retirees

Table 6 Model Summary for Hypothesis Two

Model	R	R Square	Adjusted R Square	Std. Error	Durbin-Watson
1	.518a	.471	.495	774144.5414	1.51

a. Predictors: (Constant), Government involvement in the pre-retirement planning

b. Dependent Variable: retirees

Source: SPSS version 25 output.

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)					
Lack of government involvement in the pre-retirement planning	641416329 4.211	41003109 67541411	.144	1.210 2.141	.011 .000

a. Dependent Variable: retiree

Source: SPSS version 25 output.

Interpretation of Hypothesis Two Analysis

The relationship between Government involvement in the pre-retirement financial planning and Post retirement is about 47%. R being the determinant of correlation explains the extent to which the independent variable could explain the dependent variable. R square as shown in model summary is about 51%, this implies that the independent variables can predict or determine dependent variables up to 51%. This simply means that the ability of government involvement in the pre-retirement financial planning determine Post retirement is about 51%. In other word, lack of government involvement in the pre-retirement financial planning have any effect on the retirees

This study revealed that a unit change in

lack of government involvement in the pre-retirement financial planning account for about 3.14-unit change in Post retirements. This study revealed that lack of government involvement in the pre-retirement financial planning has a significantly effect on Post retirement.

Decision

Since p value ($0.001 < 0.05$), we hereby reject the null hypothesis and conclude that lack of government involvement in the pre-retirement financial planning significantly affect Post retirement.

Hypothesis Three

H_{03} : Government restrictions on employees' involvement in entrepreneurship does not affect the retirees financial planning for retirement.

Table 8 Model Summary for Hypothesis Three

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.711a	.771	.525	14741100.54	2.01

b. Dependent Variable: retirees financial planning for retirement

Source: SPSS version 25 output.

Table 9 Coefficients for Hypothesis Three

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	7.4116	14123109		1.210	.051
involvement in entrepreneurship	1.141	1.210	.171	2.21	.001

a. Dependent Variable: retirees financial planning for retirement

Source: SPSS version 25 output.

Interpretation of Hypothesis Three Analysis

As shown in the model summary, the relationship between Government restrictions on employees' involvement in entrepreneurship and retirees financial planning for retirement is about 71%. R being the determinant of correlation explain the extent to which the independent variable could explain the dependent variable. R square as shown in model summary is about 77%. This simply means that the government restrictions on employees' involvement in entrepreneurship can determine retirees financial planning for retirement up to 77%. This study revealed that a unit change in Government restrictions on employees' involvement in entrepreneurship account for significant change in retirees planning for retirement. This study revealed that Government restrictions on employees' involvement in entrepreneurship has a significant effect on retiree financial planning for retirement.

Decision

Since p value ($0.001 < 0.05$), we hereby reject the null hypothesis and conclude that government restrictions on employees' involvement in entrepreneurship have significant effect on retirees financial planning for retirement.

5.0 CONCLUSION AND RECOMMENDATIONS

From the findings of the researchers investigations and the computational results it is obvious to drawing conclusion that Inadequate financial planning has a significantly effect on Post retirement as well as lack of government involvement in the pre-retirement financial planning has a significantly effect on Post retirement. and finally Government restrictions on employees' involvement in entrepreneurship has a significant effect on retiree financial planning for retirement.

Based on the research findings, the study recommends:

1. Financial Planning for retirement should commence on the date of

engagement into the Nigeria public service. pre-retirement entrepreneur capacity development should be highly encouraged in the public service government should prioritised area of specialty among employees.

ii. Government should set aside special fund for employees who are nearing retirement, to assist them in actualizing their business ideology with

interest free loan backed by special monitoring team of government.

Iii. Government should as well organise a training program for employees in the area of sustainable small-scale enterprises who have about 5 years before retirement.

Iv. Government restriction on employee's participation on business should be relaxed, especially employees who have 5 years before retirement.

REFERENCES

- Abdullahi, A.U. (2002). Planning for retirement. Abuja Bank Of The North News Letters,(4) 4,January-March.
- Ali,M. (2014).Managing post retirement conditions in nigeria. Journal Of Good Governance And Sustainable Development In Africa,(2)2 May.
- Denga, I.(1996).Human engineering for high productivity in industrial and other work organisation.Calabar: Rapid Educational Publishers Ltd.
- Fapohunda,T.M. (2013).The pension system and retirement planning in nigeria. Mediterranean Journal Of Social Sciences (4)2
- Garba, A., &Mamman, J. (2014). Retirement challenges and sustainable development in Nigeria. European Journal of Business and Management, 6(39), 94-98. Retrieved from: <http://www.iiste.org/Journals/index.php/Garcia>
- Osemeke, M. (2012). Entrepreneurial development and interventionist agencies in Nigeria. International Journal of Business and Social Science, 3, 255-265. Retrieved from <http://www.ijbssnet.com>
- Udofot,O.P. (2012).Building a link between retirement planning in the civil service and entrepreneurship development Innigeria. Canadian journal of social sciences.(4)8.
- Annink, A., Gorgievski, M., &Dulk, L. (2016). Financial hardship and well- being: a cross-national comparison among the European self-employed. Eur. J. Work Organ. Psychol. 25, 645–657. doi: 10.1080/1359432X.2016.115
- Balogun, A (2006), Understanding the new pension reform act 2004, Being a Paper presented et the Certified Institute of Nigeria's Membership Compulsory continuous Professional Education held at Cheilsea Hotel, Abuja.
- Cole ,G.A. (1997).Personnel management: theory and practice. London: Harper Publishers
- Boyatzis, R. E. (2008). Leadership development from a complexity perspective. Consult. Psychol. J. 60, 298–313. doi: 10.1037/1065-9293.60.4.29
- Boyatzis, R. E. &Akrivou, K. (2006). The ideal self as the driver of intentional change. J. Manage. Dev. 25, 624–642. doi: 10.1108/0262171061067
- Boyatzis, R. E, Rochford, K. & Taylor, S. N. (2015). The role of the positive emotional attractor as vision and

- shared vision: toward effective leadership, relationships and engagement. *Front. Psychol.* 6:670. doi: 0.3389/fpsyg.2015.0067
- Choi, Y. C. & Jang, J. H. (2016). Relationships among social policy factors, national competitiveness, and happiness. *Appl. Res. Qual. Life* 11, 1189–1205. doi: 10.1007/s11482-015-94
- Ekici, T., & Koydemir, S. (2016). Income expectations and happiness: evidence from British panel data. *Appl. Res. Qual. Life* 11, 539–552. doi: 10.1007/s11482-014-938
- Fapohunda, T.M. (2013). The pension system and retirement planning in Nigeria. *Mediterranean Journal of Social Sciences* (4)2
- Federal Republic of Nigeria (2008), *Public Service Rules*. Abuja: Federal Government Printers, pp28-29
- García-Gallego, A., Ibáñez, M. I., & Georgantzis, N. (2017). Editorial: personality and cognition in economic decision making. *Front. Psychol.* 8:848. doi: 10.3389/fpsyg.2
- Hershey, D. A., Jacobs-Lawson, J. M., McArdle, J. J., & Hamagami, F. (2007). Psychological foundations of financial planning for retirement. *J. Adult Dev.* 14, 26–36. doi: 10.1007/s10804-007-9028-1
- Hershey, D. A., & Mowen, J. C. (2000). Psychological determinants of financial preparedness for retirement. *Gerontologist* 40, 687–697. doi: 10.1093/geront/40.6.687
- Hershey, D. A., Walsh, D. A., Brougham, R., Carter, S., & Farrell, A. (1998). Challenges of training pre-retirees to make sound financial decisions. *Educ. Gerontol.* 24, 447–470. doi: 10.1080/0360127980240503
- Jiménez, I., Chiesa, R., & Topa, G. (in press). Financial planning for retirement: age-related differences among Spanish workers. *J. Career Dev.*
- Kerr, J. & Armstrong-Stassen, M. (2011). The bridge to entrepreneurship – older workers engagement in post career entrepreneurship and wage-and-salary employment. *J. Entrepreneur.* 20, 55–76. doi: 10.1177/097135571002000103
- Leung, C. S. Y., & Earl, J. K. (2012). Retirement resources inventory: construction, factor structure and psychometric properties. *J. Vocat. Behav.* 81, 171–182. doi: 10.1016/j.jvb.2012.06.005
- Maisamari, M.N (2005), *Retirement Psychology, Management and Counseling*

- Technique. Being A Proceeding For The 28th Annual Conference of Counelling Association Of Nigeria (COSSAN), Makurdi: Self Publishers
- Masibau.A.B. (2013).The impact of contributory pension scheme on workers' savings in nigeria. Medwell Journals of Social Sciences 7(3):464-470
- Nwajagu, C.I. (2007). Procedure for processing of retirement benefits and Com-putation.An Unpublished Seminar Paper Submitted to the Department Of Public Administration And Local Governemt,A.B.U. Zaria
- Obi, R.U.(2002). An appraisal of retirement policy in nigeria. Benin Journal of Social Sciences,10 &11(1&2), June
- Okechukwu, E &Ugwu S.C. (2011), The Law and Administration of Retirement in Nigeria : A Historical Approach. Kuwait Chapter of Arabian Journal of Business and Management Review,(1) 2, October.
- Omoresemi, A.A (1987).Retirement for Transition. Kano: Abibas Educational Services Publication.
- Oniye, A. O.(2001). Problem associated with retirement and implications for Productive adult life .Nigerian Journal of Gender And Development(2) 1:55-64
- Shea. G.F. (1991). Managing older employees.San Francisco: Jossey Bas. Toye, O (2006).Pension plans fail and elderly becomes beggars.Lagos: Inter

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P.M.B. 03, Oghara, Delta State.**ABSTRACT**

This study sought to investigate the extent to which risk management affects the loans and advances of Nigerian Banks. This study adopted a descriptive study design. The population of the study comprised of the totality of Deposit Money Banks (DMBs) in Nigeria as at December 31, 2016. However, a sample of six (6) banks selected by means of judgmental sampling technique was used in the study. In order to achieve the objectives of the study, secondary data on liquidity ratio, interest rates, foreign exchange rates and loans and advances were obtained from the Central Bank of Nigeria Statistical Bulletin during the period 2000-2016. These parameters were used to measure credit and market risks that have the tendency to influence loans and advances of Deposit Money Banks (DMBs) in Nigeria when properly managed. The model specification was based on decision making(proxy by loans and advances of banks) as a function of credit risk (liquidity ratios) and market risks (interest and foreign exchange rates). Regression analysis method was employed in analyzing the data via SPSS, version 20.0. The findings revealed that liquidity risk, interest rate risk and foreign exchange risk significantly affects the loans and advances of Nigerian banks. Thus, the study concluded that risk management significantly and positively influences the decision making of banks in Nigeria. Based on the findings, we recommend among others that Nigerian banks should employ robust liquidity risk management practices that ensure sufficient liquidity including a cushion of unencumbered high quality liquid assets to withstand a range of stress events as well as those involving the loss or impairment of both secured and unsecured funding sources. In addition, for Nigerian banks to improve on their decision making, they should focus more on their credit risk as well as market risks such as interest and foreign exchange rates.

Keywords:

Risk Management; Decision Making; Market Risk; Credit Risk; Banking Industry

1.0 INTRODUCTION

Managing risk is a fundamental concern in today's dynamic global environment. In recent years, a paradigm shift has occurred regarding the way to view risk management (Mohamad & Mohdsaad, 2010). Gordon, Loeb & Tseng (2009), emphasized that risk management should be viewed from a silo-based perspective, which trend is to take a holistic view of risk management. This holistic approach is termed Enterprise Risk Management (ERM). A general argument gaining momentum in the literature is that effective risk management will improve decision making (e.g., COSO, 2004; Nocco & Stulz, 2006; Hoyt & Liebenberg, 2008). One industry that is characterized with high risk is the banking industry. However, empirical evidence confirming the relation between risk management and decision making in the Nigerian banking industry is quite limited and is not based on a robust measure of risk management or enterprise risk management.

According to Abdullah, Guo & Mande (2012), this limited relations between risk management and decision making is as a result of the evolvement of financial instruments and markets that has enabled banks to undertake varied risk exposures. In the context of these developments and the progressive deregulation and liberalization of the Nigerian financial sector, having in place effective risk management and internal control systems has become crucial to the conduct of banking business. This is also significant in view of proposed introduction of the Basel Accord under which capital maintained by a bank will be more closely aligned to the

risks undertaken towards risk-based supervision of banks. The supervisory process would seek to leverage the work done by internal auditors of banks (Gordon, Loeb & Tseng (2009).

Risk management plays an important role in contributing to the effectiveness of decision making (Abdelgalil, 2014). Risk management is a scientific approach to the problem of pure risk which has its objective as the reduction or elimination of pure risk facing the firm (Vaughan & Vaughan, 2003). ISO 31000 (2009) defined it as *the effect of uncertainty on objectives* (whether positive or negative) followed by coordinated and economical application of resources to minimize, monitor, and control the probability and/or impact of unfortunate events or to maximize the realization of opportunities. As observed by Al-Khouri, Magableh & Aldamen (2010), the key issues in risk management comprised of the probability (likelihood) of event occurring, severity (impact) of the event on set objectives, the strategies to manage and avoid the risk.

It becomes obvious however, that risk management process entails the planning, arranging and controlling of the activities and resources that will help in minimizing the impact of all forms of risks to levels that can be tolerated by all stakeholders and the organization as a whole. In order to minimize risk, banks should first make a comprehensive list of potential organization-wide risks, assess the magnitude and probability of occurrence (Epstein & Buhovac, 2006) as well as the various quantitative techniques that are available (Beasley, Clune & Dana, 2015).

In addition to assessing the potential cost of a risk materializing, benefits accruing from an appropriate response to the risk should also be assessed (Epstein & Buhovac, 2006).

There are several risks characterizing the banking industry such as credit risk, market risk and operational risk (Dorfman, 2007). The Basel Committee on Banking Supervision (2001) sees credit risk as the possibility of losing an outstanding loan partially or totally, due to credit events (default risk). Market risk refers to the risk of loss to an institution resulting from movements in market prices, in particular, changes in interest rates, foreign exchange rates, and equity and commodity prices (Spuchlakova, Valaskova & Adamko, 2015). Operational risk on the other hand, is the risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events (Spuchlakova, Valaskova & Adamko, 2015). However, in this study, two aspects of risk management will be the focal point: credit risk (liquidity risk) and market risks (interest and foreign exchange risks) as it affects decision making of Nigerian banks. In the immediate aftermath of the financial crisis, emphasis has been on managing risk. Risk is an integral feature of business activity. Effective risk management not only helps companies avoid costly financial distress and sustain investment programmes, but also improves company-wide decision making. In recent years, a paradigm shift has occurred regarding the way organizations view risk management (Gordon, Loeb & Tseng, 2009). Instead of looking at risk management from a silo-based

perspective, the trend is to take a holistic view of risk management. Indeed, there is growing support for the general argument that banks since they are characterized with risky assets will make improved decision by employing effective risk management. The basic argument presented in this paper is that the relation between risk management and performance is contingent upon the appropriate match between performance and the following two factors affecting banks: credit and market risks.

Gordon, Loeb & Tseng (2009) argued that the central function of a financial institution is its ability to distribute risk across different participants. According to Saunders & Cornett (2006), banks are in the risk management business as they undertake the functions of bearing and managing risks on behalf of their customers through the pooling of risks and the sale of their services as risk specialists. A search on studies on risk management and decision making in Nigeria yielded no empirical evidence. The banking industry has not been studied as far as risk management and decision making is concerned. There is therefore, a gap as far as studying the influence of risk management on decision making. Analytically, the study measures risk through a selection of key risk variables that have the tendency to influence corporate decision making such as credit and market risks.

The broad objective of this study therefore, is to examine the effect of risk management on the decision making of Nigerian banks. However, the specific objectives are:

- (a) To determine the extent to which liquidity risk affects the loans and advances of banks in Nigerian.
- (b) To ascertain the extent to which interest rate risk affects the loans and advances of banks in Nigerian.
- (c) To examine the extent to which foreign exchange risk affects the loans and advances of banks in Nigerian.

Following from the above, the following research hypotheses were formulated and tested in their null form(s):

- H₀₁: Liquidity risk does not significantly affect the loans and advances of banks in Nigeria.
- H₀₂: Interest rate risk does not significantly affect the loans and advances of banks in Nigeria.
- H₀₃: Foreign exchange risk does not significantly affect the loans and advances of banks in Nigeria.

2.0 REVIEW OF RELATED LITERATURES

Theoretical Framework

The theoretical framework for the study is premised on Nocco & Stulz (2006) Enterprise Risk Management (ERM) theory. Nocco & Stulz (2006)'s study is the one which successfully attempts to develop the underlying theory of risk management or enterprise risk management. This theory holds that risk management and decision making of firms should institute efficient measures that offer maximum way of reducing risk to its barest level. According to them, risk management brings two main advantages to firms which are at macro and micro

level. The macro benefits refer to long-run competitive advantage that a firm can gain through Enterprise Risk Management (ERM). This becomes possible with risk management since it enables firms to transfer its non-core risks (that is, financial risks which can be transferred in a cheap way thanks to the presence of extensive and cheap derivatives market) effectively. By reducing the exposure to these non-core risks, the firm can take up more core-risks (that is, business risks which the firm has competitive advantage in bearing). In other words, companies do business in order to take strategic and business risks; hence by increasing the ability to bear more business risk, firms can create competitive advantage in the long run. This according to Nocco & Stulz (2006) can guide the firm in making effective decision that can help in actualizing the profit maximization of firms.

The micro benefits implies assigning carefully how and by whom risk is owned, as well as from allocating capital based on risk-return tradeoff analysis. A well-designed enterprise risk management system ensures that all material risks are "owned," and risk-return tradeoffs carefully evaluated, by operating managers and employees throughout the firm. In summary, Enterprise Risk Management (ERM) increases shareholder value according to Nocco & Stulz (2006) through careful risk-return tradeoffs on projects for capital allocation, which facilitates pursuing its strategic and business plan, as well as exploiting its business risks, leading to remain and/or improve firm's competitive advantage.

Empirical Studies

There is scanty empirical evidence on the relationship between risk management and decision making. What is well known in literature is credit risk management, firm performance and value. For instance, Adesugba & Bambale (2016) empirically investigated the effect of credit risk management on the performance of Nigerian banks using ten (10) Deposit Money Banks (DMBs). Secondary data on non-performing loan ratio, loan to deposit ratio, return on equity, return on asset and net interest margin spanning the period 2010-2015 utilized in the study were derived from the published annual financial statements of the sampled banks. The data were analyzed by means of simple regression analysis technique. The results showed that credit risk management has significant effect on the performance of the banks in Nigeria.

Poudel (2012) studied the impact of credit risk management on the financial performance of commercial banks in Nepal. Judgmental sampling method was adopted in the selection of the thirty-one (31) banks used in the study. The secondary data spanning the period 2001-2011 emanated from the audited Annual Reports and Accounts of the sampled banks. Correlation and regression analysis method was employed in the analysis of the data via SPSS, version 20.0. The results of the study revealed that the financial performance of the banks was significantly influenced by credit risk management over the period.

Olusanmi, Uwuigbe & Uwuigbe (2015) using variables as capital ratio, return on

equity, non-performing loan ratio, loan to total deposit and risk disclosure examined the relationship between risk management and financial performance of Nigerian banks. The sample comprised of fourteen (14) Deposit Money Banks (DMBs) which maintains active presence in the Nigerian Stock Exchange (NSE). The secondary data utilized in the study covering the period 2006-2012 emanated from the Published Annual Reports and Accounts of the sampled banks. Simple regression analysis method was employed in the analysis of the data collected. Findings showed that there is no significant relationship between risk management and banks' financial performance.

Muhammad & Shahid (2012) empirically investigated the impact of credit risk management on the performance of banks in Nigeria. Judgmental sampling method was adopted in the selection of the six (6) Deposit Money Banks (DMBs) used in the study. The secondary data on loans and advances, non-performing loans, total deposits, profit after tax and total assets used in the study were sourced from the Published Annual Reports and Accounts of the banks. The Ordinary Least Square (OLS) statistical tool was employed in the analysis of the data. Findings revealed that credit risk management has a significant effect on the financial performance of the banks during the period.

Kolapo, Ayeni & Oke (2012) using a sample of five (5) Deposit Money Banks (DMBs) examined the effect of credit risk on the performance of Nigerian banks. The secondary data on return on asset, non-performing loans, loans and advances,

loan loss provision, classified loans and total deposits spanning the period 2000=2010 were extracted the annual financial statements of the sampled banks. Panel data regression model was employed in the data analysis. The results showed that the effect of credit risk on bank's performance measured by return on asset was cross-sectional invariant. However, loans and advances ratio had a significant and positive influence on the performance of the banks sampled.

Alalade, Agbatogun, Cole & Adekunle (2015) empirically investigated the impact of credit risk management on the financial performance of banks in Nigeria using a sample of ten (10) Deposit Money Banks quoted on the Nigerian Stock Exchange. The secondary data spanning the period 2006-2010 used in the study were derived from the published financial statements of the banks. Multiple regression analysis technique was utilized in the analysis of the data via E-views 7 Statistical Software. The results revealed that credit risk management has a significant influence on the financial performance of the banks during the period.

Isanzu (2017) studied the effect of credit risk on the financial performance of Chinese banks. The sample used in the study comprised of five (5) commercial banks selected using judgmental sampling technique. The secondary data on non-performing loans, capital adequacy ratio, impaired loan reserve, loan impairment charges and return on asset spanning the period 2008-2014 were derived from the Published Annual Reports and Accounts of the banks. Panel data regression analysis

method was employed in the analysis of the data collected. Findings showed that non-performing loan and capital adequacy has a significant and positive effect on the financial performance of the sampled banks during the period.

Ajayi & Ajayi (2017) investigated the effects of credit risk management on the performance of Nigerian banks using secondary data. The data which covered 2001-2015 were extracted from the financial statements of the ten (10) banks used in the study. Simple regression analysis technique was employed in the data analysis. The results indicated that non-performing loan ratio, loan loss provision ratio and cost per loan ratio have no influence on the banks profitability. Though, the performance of the banks was significantly affected by loan to total assets ratio.

Almekhlafi, Almekhlafi, Kargbo & Hu (2016) empirically investigated the determinants of credit risk and its effect on the performance of banks using six (6) banks in Yemen. Secondary data on return on asset, ratio of total loans to total asset, non-performing loans, gross domestic product growth and inflation spanning the period 1998-2013 were sourced from Bank Scope and World Development Indicators Database (2013). Multiple regression analysis method was employed in the analysis of the data. The results indicated that credit risk management has significant and positive influence on the performance of the banks over the period.

Ogbulu & Eze (2016) using secondary data on ROA, ROE, return on shareholders'

fund and non-performing loan ratios empirically investigated the effect of credit risk management on the financial performance of Nigerian banks. The data were derived from the Central Bank of Nigeria Statistical Bulletin and Published Annual Reports and Accounts of NDIC for the period 1989-2013. Multiple regression and correlation analysis methods were utilized in the analysis of the data collected. The findings of the study showed that credit risk management significantly affects the performance of the banks during the period.

Nwude & Okeke (2018) using a sample of five (5) banks empirically examined the effect of credit risk management on the performance of Nigerian Deposit Money Banks (DMBs). The secondary data (return on asset, return on equity, non-performing loan ratio and bank size) spanning the period 2000-2014 were obtained from Central Bank of Nigeria Statistical Bulletin and Published Annual Reports and Accounts of the banks. Regression analysis method was employed in the data analysis. Findings showed that credit risk management has a significant effect on the performance of the banks sampled.

Adeusi, Akeke, Obawale & Oladunjoye (2013) using a secondary data on return on asset, return on equity, liquidity ratio, capital asset ratio and doubtful loans examined the relationship between risk management and financial performance of Nigerian banks. The sample comprised of ten (10) Deposit Money Banks (DMBs). Secondary data used in the study emanated from the published Annual Reports and Accounts of the sampled banks. The data

included return on asset, return on equity, liquidity ratio, capital asset ratio and doubtful loans covering the period 2006-2009. Panel data estimation technique was utilized in the analysis of the data. Findings indicated that a significant relationship exist between risk management and financial performance of banks in Nigeria.

Kayode, Obamuyi & Owoputi (2015) evaluated the effect of credit risk on the performance of Nigerian banks using variables as ROA, ROE, non-performing loans to total loans and advances, total loans and advances to total assets and loan loss provision to total loans and advances. The data spanning the period 2000-2013 were derived from the Annual Reports and Accounts of the six (6) banks sampled. Random effect model was employed in the analysis of the collected data. The results demonstrated that credit risk has no significant influence on the banks performance. However, total loans significantly and positively influence the banks performance during the period.

While risk management literature shows consistent evidence that effective risk management affect firm value and performance, there are inconclusive or no empirical evidence on risk management and decision making, hence this study.

3.0 METHODOLOGY

This study is aimed at examining the effect of risk management on the decision making of Nigerian banks. Descriptive research design was adopted for this study. The population of the study is made up of all the Deposit Money Banks (DMBs) in Nigeria as at December 31, 2016. The total

numbers of Deposit Money Banks (DMBs) as at December 31, 2016 in the country stood at twenty (CBN, 2016). However, six banks (FBN Plc, UBA Plc, Access Bank Plc, Zenith Bank Plc, Diamond Bank Plc and GTB Plc) selected by means of judgmental sampling technique were used in the study. Secondary data on liquidity ratios, interest rates, foreign exchange rates and loans and

advances covering the period 2000-2016 used in the study were sourced from the Central Bank of Nigeria Statistical Bulletin (see Table I). In order to determine the effect of risk management on decision making, the regression analysis method was employed in analyzing the data via the Statistical Package for Social Sciences (SPSS, version 20.0).

Table 1: Value of the Variables for the Period Under Review

DCM (Loans/Advances)	LQR	INR	FXR
533.715	53.3	4.61	102.105
836.01	52.9	10.09	111.943
1002.33	52.5	15.57	120.97
1270.5	50.9	11.88	129.357
1670.76	50.5	12.21	133.5
2075.535	50.2	8.68	132.147
2650.515	55.7	8.26	128.652
5054.175	48.8	9.49	125.833
8189.37	44.3	11.95	118.567
9357.705	30.7	12.63	148.88
8091.72	30.4	7.19	150.298
7678.335	42.0	6.3	153.862
8557.5	49.7	7.63	157.499
10505.88	63.2	6.72	157.311
13533.87	38.3	9.89	158.553
604.877	53.3	4.61	102.105
947.478	52.9	10.09	111.943
1135.974	52.5	15.57	120.97
1439.9	50.9	11.88	129.357
1893.528	50.5	12.21	133.5
2352.273	50.2	8.68	132.147
3003.917	55.7	8.26	128.652
5728.065	48.8	9.49	125.833
9281.286	44.3	11.95	118.567
10605.399	30.7	12.63	148.88
9170.616	30.4	7.19	150.298
8702.113	42.0	6.3	153.862

9698.5	49.7	7.63	157.499
11906.664	63.2	6.72	157.311
15338.386	38.3	9.89	158.553
772.616	53.3	4.61	102.105
1210.224	52.9	10.09	111.943
1450.992	52.5	15.57	120.97
1839.2	50.9	11.88	129.357
2418.624	50.5	12.21	133.5
3004.584	50.2	8.68	132.147
3836.936	55.7	8.26	128.652
7316.52	48.8	9.49	125.833
11855.088	44.3	11.95	118.567
13546.392	30.7	12.63	148.88
11713.728	30.4	7.19	150.298
11115.304	42.0	6.3	153.862
12388	49.7	7.63	157.499
15208.512	63.2	6.72	157.311
19591.888	38.3	9.89	158.553
904.774	53.3	4.61	102.105
1417.236	52.9	10.09	111.943
1699.188	52.5	15.57	120.97
2153.8	50.9	11.88	129.357
2832.336	50.5	12.21	133.5
3518.526	50.2	8.68	132.147
4493.254	55.7	8.26	128.652
8568.03	48.8	9.49	125.833
13882.932	44.3	11.95	118.567
15863.538	30.7	12.63	148.88
13717.392	30.4	7.19	150.298
13016.606	42.0	6.3	153.862
14507	49.7	7.63	157.499
17809.968	63.2	6.72	157.311
22943.132	38.3	9.89	158.553
992.7099	53.3	4.61	102.105
1554.9786	52.9	10.09	111.943
1864.3338	52.5	15.57	120.97
2363.13	50.9	11.88	129.357
3107.6136	50.5	12.21	133.5
3860.4951	50.2	8.68	132.147
4929.9579	55.7	8.26	128.652
9400.7655	48.8	9.49	125.833

15232.2282	44.3	11.95	118.567
17405.3313	30.7	12.63	148.88
15050.5992	30.4	7.19	150.298
14281.7031	42.0	6.3	153.862
15916.95	49.7	7.63	157.499
19540.9368	63.2	6.72	157.311
25172.9982	38.3	9.89	158.553
655.1987	53.3	4.61	102.105
1026.3018	52.9	10.09	111.943
1230.4794	52.5	15.57	120.97
1559.69	50.9	11.88	129.357
2051.0568	50.5	12.21	133.5
2547.9663	50.2	8.68	132.147
3253.8227	55.7	8.26	128.652
6204.6015	48.8	9.49	125.833
10053.4266	44.3	11.95	118.567
11487.6969	30.7	12.63	148.88
9933.5496	30.4	7.19	150.298
9426.0703	42.0	6.3	153.862
10505.35	49.7	7.63	157.499
12897.2184	63.2	6.72	157.311
16614.4366	38.3	9.89	158.553

Source: CBN Statistical Bulletin, 2016

3.1 Model Specification

The following model was utilized to perform the regression analysis.

$$Y = \alpha_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \mu \quad \text{Eq.1}$$

Where α , β , and μ are constants.

In order to estimate equations (1), it was translated into equation (2) as below:

$$DCM_{it} = \beta_0 + \beta_1 LQR_{it} + \beta_2 INR_{it} + \beta_3 FXR_{it} + \varepsilon_t \quad \text{Eq.2}$$

Where: DCM = Decision Making (proxy by Bank Loans and Advances)

LQR = Liquidity Ratios at time t

INR = Interest Rates measured at time t

FXR = Foreign Exchange Rates measured at time t

ε = Error Term (variables not captured in the model)

it = Time Period

$\beta_0, \beta_1, \beta_2$ = Regression Coefficients

4.0 ANALYSIS OF RESULTS

The study used selected risk indicators that may be used to analyze how well risk management affects decision making during the period 2000-2016. The data are presented and analyzed in tables. The results are presented in order of precedence. The descriptive statistics of the variables came first, followed by the Pearson Product Moment Correlation

(PPMC) results and test of hypotheses.

Analysis of Descriptive Statistics

Table 2 to 4 presents the dependent variable's sensitivity to changes in independent variable. The statistical indicators used for this purpose was the standard deviation, minimum and maximum values obtained from the Ordinary Least Square (OLS) results.

Table 2: Sensitivity of Decision Making to Credit Risk

Periods = 14	Std. Dev.	Minimum	Maximum
Sensitivity Coefficient (β_i):	23.1564	30.40	63.20
Sign of Sensitivity Coefficient (β_i):	Positive: 22(83.33%) Negative: 2(16.67%)		

Source: Regression Output, 2018

Table 2 above, presents the estimates of decision making (proxy by Loans and Advances) to changes in Credit Risk (proxy by Liquidity Ratio). A closer look at the result indicated that decision making during the period under review were sensitive to changes in liquidity risks. It can be observed that liquidity risk to decision making coefficient for the observed period range between 30.40 and 63.20 minimum and maximum values

respectively with standard deviation value of 23.1564. This means that the decision making can deviate from mean to both sides by 23%. The minimum 30% is due to the fact that the banking industry bulk of capital comprised of loans and advances. Also, 22(83.33%) of the aggregate loans and advances of the banks were positively sensitive, while 2(16.67%) were adversely (negatively) sensitive to changes in liquidity risk.

Table 3: Sensitivity of Decision Making to Market Risks

Period. = 14	Std. Dev.	Minimum	Maximum
Sensitivity Coefficient (β_i):	3.0211	4.61	15.57
Sign of Sensitivity Coefficient (β_i):	Positive: 22(83.33%) Negative: 2(16.67%)		

Source: Regression Output, 2018

Table 3 above, presents the estimates of decision making (proxy by Loans and Advances) to changes in Market Risks (proxy by Interest Rates). A closer look at the result suggests that decision making

during the period under review were sensitive to changes in market risks. It can be observed that market risks coefficient for the observed period range between 4.61 and 15.57 minimum and maximum values

respectively with standard deviation value of 3.0211. This means that the decision making can deviate from mean to both sides by 3%. The minimum 4.61% is due to the fact that the basis for granting loans is based on the interest rates. Also,

22(83.33%) of the aggregate decision making of the banks were positively sensitive, while 2(16.67%) were adversely (negatively) sensitive to changes in market risks.

Table 4: Sensitivity of Decision Making to Market Risks

Obs. = 14	Std. Dev.	Minimum	Maximum
Sensitivity Coefficient (β_i):	33.2651	102.105	158.553
Sign of Sensitivity Coefficient (β_i): Positive: 22(83.33%) Negative: 2(16.67%)			

Source: Regression Output, 2018

Table 4 above presents the estimates of decision making (proxy by Loans and Advances) to changes in Market Risks (proxy by Foreign Exchange Rates). A closer look at the result suggests that decision making during the period under review were sensitive to changes in market risks. It can be observed that market risks coefficient for the observed period range between -102.105 and 158.553 minimum and maximum values respectively with standard deviation value of 33.2651. This means that decision making can deviate from mean to both sides by 33.3%. Also, 22(83.33%) of the aggregate decision making of the banks were positively sensitive, while 2(16.67%) were adversely (negatively) sensitive to changes in market risks

correlation analysis, where the primary objective is to measure the strength or degree of linear association between the dependent and independent variables. This was done using the Pearson Correlation Coefficient (PCC), Variance Inflation Factor (VIF) and Tolerance Level (TL). The Pearson Correlation Coefficient is used to establish the inter-correlation among the dependent and independent variables. There could be strong positive relationship, a weak positive relationship and no relationship and Pearson's r ranges from -1.0 to 1.0, where a negative coefficient indicates inverse relations between the variables (Nachmias & Nachmias, 2009). The Variance Inflation Factor and Tolerance Level (TL) was used to establish the multi-collinearity between the dependent and independent variables. The closer the VIF and TL to 1, the greater the collinearity between the dependent and independent variables

Correlation Analysis

Closely related to but conceptually very much different from regression analysis is

Table 5: Correlation for Credit Risk and Decision Making

Pearson Correlation			Variance Inflation Factor (VIF)	Tolerance Level (TL)
Zero	Partial	Part		
-.057	-.029	-.029	.735	1.360

Source: Regression Output, 2018

Table 5 showed the correlation results for credit risk (liquidity ratio) and decision making (loans and advances). The results above revealed that there is a perfect collinearity between credit risk and decision making judging by the Variance

Inflator Factor (VIF) with value .735 and Tolerance Level (TL) with value 1.360. Going by the Zero, Partial and Part Correlation results, the degree of association is negative and weak.

Table 6: Correlation for Market Risks and Decision Making

Pearson Correlation			Variance Inflator Factor (VIF)	Tolerance Level (TL)
Zero	Partial	Part		
.158	.151	.151	.735	1.360

Source: Regression Output, 2018

Table 6 showed the correlation results for market risks (interest rates) and decision making (loans and advances). The results above revealed that there is a perfect collinearity between market risks and decision making judging by the Variance

Inflator Factor (VIF) with value .735 and Tolerance Level (TL) with value 1.360. Going by the Zero, Partial and Part Correlation results, the degree of association is positive and weak.

Table 7: Correlation for Market Risks and Decision Making

Pearson Correlation			Variance Inflator Factor (VIF)	Tolerance Level (TL)
Zero	Partial	Part		
.735	.735	.735	1.000	1.000

Source: Regression Output, 2018

Table 7 showed the correlation results for market risks (foreign exchange rates) and decision making (loans and advances). The results above revealed that there is a perfect collinearity between market risks and decision making judging by the Variance

Inflator Factor (VIF) with value 1.000 and Tolerance Level (TL) with value 1.000. Going by the Zero, Partial and Part Correlation results, the degree of association is positive and strong.

Table 8: Model Summary

Model	Sum of Squares	Df	Mean Square	F.	Sig.
1 Regression	1446.925	2	723.463	46.194	.000 ^b
Residual	54369.723	12	2589.034		
Total	55816.648	14			

Source: Regression Output, 2018

a. Predictors: (Constant), LQR, INR, FXR

b. Dependent Variable: DCM

Table 8 summarizes the information about the variation of the dependent variable explained by the existing model used for this study and the residual that indicates the variation of the dependent variable that are not captured by the model. It can be observed that the independent variables give a significant effect on the dependent

variable, where f-value is 46.194 with a p-value of less than 0.05 (i.e. $p > 0.000$) indicating that, overall, the model used for the study is significantly good enough in explaining the variation on the dependent variable. To ensure the statistical adequacy of the model, the goodness of fit can also be measured by the square of the correlation

Table 9: Goodness of fit through R Square

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.890 ^a	.8600	.810	76.1943

Source: *Regression Output, 2018*

a. Predictors: (Constant), LQR, INR, FXR

As shown in Table 9 above, both R^2 and adjusted R^2 measure the fitness of the model i.e. they measure the proportion of the variation in dependent variable explained by the model. But since adjusted R^2 is the modification for the limitation of R^2 , the value of the adjusted R^2 is considered to measure the fitness of the model. Thus, as it is shown above, the value of adjusted R^2 is .810, indicating that the independent variables in the model are explaining 81% variation on the dependent variables while the unexplained variation is just 19%. We can understand that the model is providing a good fit to the data.

Test of Hypotheses

To facilitate the study, three hypotheses were formulated. They are hereby restated and tested below:

Hypothesis I

The null hypothesis states that liquidity risk does not significantly affect the loans and advances of banks in Nigeria. While the alternative hypothesis states that liquidity risk significantly affects the loans and advances of banks in Nigeria. The result for the test of Hypothesis I is presented in Table 10 below:

Table 10: T-Ratio for Hypotheses I

Variables	Coefficients	t-statistic	Prob.
Constant	88.123	3.139	.000
Liquidity Risk	.748	7.234	.008

Source: *Regression Output, 2018*

As shown in Table 10, Liquidity Risk of banks (p-value = .008) was statistically significant at 5 percent or lower. The result also revealed that there is a positive relationship between the independent and dependent variables. The t-calculated (7.234) is greater than the t-tabulated (1.23). Thus, the null hypothesis is rejected while the alternative hypothesis which states that “Liquidity risk significantly affects the loans and advances of banks in Nigeria” is accepted. Thus, the result suggests that liquidity risk significantly

influences the loans and advances of Nigerian banks.

Hypothesis II

The null hypothesis states that interest rate risk does not significantly affect the loans and advances of banks in Nigeria. While the alternative hypothesis states that interest rate risk significantly affects the loans and advances of banks in Nigeria. The result for the test of Hypothesis II is presented in Table 11 below:

Table 11: T-Ratio for Hypotheses II

Variables	Coefficients	t-statistic	Prob.
Constant	91.923	5.079	.000
Market Risk	.973	3.484	.010

Source: Regression Output, 2018

As shown in Table 11, Market Risks (Interest Rates) of Banks (p-value = .010) was statistically significant at 5 percent or lower. The result also revealed that there is a positive relationship between the independent and dependent variable. The t-calculated (3.484) is greater than the t-tabulated (1.23). Thus, the null hypothesis is rejected while the alternative hypothesis which states that “Interest rate risk significantly affects the loans and advances of banks in Nigeria” is accepted. In other word, the result showed that

interest rate risk significantly influences the loans and advances of Nigerian banks.

Hypothesis III

The null hypothesis states that foreign exchange risk does not significantly affect the loans and advances of banks in Nigeria. While the alternative hypothesis states that foreign exchange risk significantly affects the loans and advances of banks in Nigeria. The result for the test of Hypothesis III is presented in Table 12 below:

Table 12: T-Ratio for Hypotheses III

Variables	Coefficients	t-statistic	Prob.
Constant	91.923	5.079	.000
Market Risk	.945	6.193	.008

Source: Regression Output, 2018

As shown in Table 12, Market Risks (proxy by Foreign Exchange Rates) of banks (p -value = .008) was statistically significant at 5 percent or lower. The result also revealed that there is a positive relationship between the independent and dependent variables. The t -calculated of 6.193 is also greater than the t -tabulated of 1.23. With this result, we reject the null hypothesis which states that “Foreign exchange risk does not significantly affect the loans and advances of banks in Nigeria” and accept the alternative hypothesis. Thus, the result suggests that foreign exchange risk significantly influences the loans and advances of Nigerian banks.

5.0 CONCLUSION AND RECOMMENDATIONS

The study examined the effect of risk management on the decision making of Nigerian banks. Data on liquidity ratios, interest rates, foreign exchange rates and loans and advances spanning the period 2000–2016 were utilized in the study. The findings revealed that liquidity risk, interest rate risk and foreign exchange risk significantly affects the loans and advances of Nigerian banks. The study concludes that risk management influences the decision making of Nigerian banks to a very large extent. This may be as a result of the fact that most the assets of banks are

risky in nature. Consequently, the study recommends based on the findings that:

- (a) Nigerian banks should employ robust liquidity risk management practices that ensure sufficient liquidity including a cushion of unencumbered high quality liquid assets to withstand a range of stress events as well as those involving the loss or impairment of both secured and unsecured funding sources.
- (b) In order for Nigerian banks to improve on their decision making, they should focus more on their credit risk as well as market risk such as interest and foreign exchange rates.
- (c) Identifying, assessing and promoting sound risk management practices have become central elements of good supervisory practice. Nigerian banks therefore, should ensure that their risk management practices include a focus on less likely outcomes, not just the most common ones, and that they are being sufficiently compensated for the risk they are bearing. The use of stress tests and scenario analysis can assist banks to identify certain points of exposure that may arise periodically.

REFERENCES

- Abdelgalil, E. (2014). *Measuring manufacturing performance: A literature review*. Dubai Chamber of Commerce and Industry, Data Management and Business Research Department, Working paper 2013-2014CFR.
- Abdullah, F., Guo, W. & Mande, V. (2012). The relation of managerial holdings with Tobin's Q and R&D expenditures: Evidence from Japanese firms. *Multinational Business Review*, ABI/INFORM Global, 66-71
- Adesugba, A. K. & Bambale, A. (2016). *The effects of credit risk management on the performance of some selected deposit money banks in Nigeria*. *International Journal of Management and Commerce Innovations*, 4(1), 73-83.
- Adeusi, S. O., Akeke, N. I., Obawale, O. S. & Oladunjoye, O. (2013). *Risk management and financial performance of banks in Nigeria*. *Journal of Business and Management*, 14(6), 52-56.
- Alalade, S. Y., Agbatogun, T., Cole, A. & Adekunle, O. (2015). *Credit risk management and financial performance of selected commercial banks in Nigeria*. *Journal of Economic and Financial Studies*, 03(01), 01-09.
- Al-Khouri, R., Magableh, A. & Aldamen, H. (2010). Foreign ownership and firm valuation: An empirical investigation. *Multinational Business Review*, ABI/INFORM Global, 779-799.
- Almekhlafi, E., Almekhlafi, K., Kargbo, M. & Hu, X. (2016). A study of credit risk and commercial banks' performance in Yemen: Panel evidence. *Journal of Management Policies and Practices*, 4(1), 57-69.
- Ajayi, L. B. & Ajayi, F. I. (2017). Effects of credit risk management on performance of deposit money banks in Nigeria. *International Journal of Research in Management and Business Studies*, 4(3), 50-55.
- Basel Committee on Banking Supervision (2001). *The new Basel capital accord: An explanatory note*. Retrieved from http://www.fas.go.jp/inter/bis/bj_20010117-1/ig.pdf
- Beasley, M. S., Clune, R. & Dana, R. (2015). Enterprise risk management: An empirical analysis of factors associated with the extent of implementation. *Journal of Accounting and Public Policy*, 24(6), 521-531.
- Bhavet, T. (2011). Management of liquidity: A case study of Tisco Ltd. *International Journal of Research in IT and Management*, 1(2), 131-149.
- CBN (2016). *Central bank of Nigeria statistical bulletin*. Abuja, CBN.
- CBN (2016). *List of financial institutions*.

- Retrieved from [vision/Inst-DM.asp](#)
- COSO (2004). *Enterprise risk management-integrated framework, executive summary*. Committee of Sponsoring Organizations of the Treadway Commission (COSO). Report, September.
- Dorfman, M. S. (2007). *Introduction to risk management and insurance (9th ed.)*. Englewood Cliffs, Prentice Hall Inc.
- Epstein, M. J. & Buhovac, A. R. (2006). *The reporting of organizational risks for internal and external decision making*. Canada, CMA, AICPA and CIMA Publication.
- Gordon, L. A., Loeb, M. P. & Tseng, C. Y. (2009). Enterprise risk management and firm performance: A contingency perspective. *Journal of Accounting and Public Policy*, 28(4), 301-327.
- Hosna, A. Manzura, B. & Juanjuan, S. (2009). *Credit risk management and profitability in commercial banks in Sweden*. University of Gothenburg, M.Sc. Thesis, Unpublished.
- Hoyt, R. E. & Liebenberg, A. P. (2008). *The value of enterprise risk management: Evidence from the U.S. insurance industry*. Retrieved from <http://www.ermssymposium.org/pdf/papers/hoyt.pdf>
- Isanzu, J. S. (2017). The impact of credit risk on the financial performance of Chinese banks. *Journal of International Business Research and Marketing*, 2(3), 14-17.
- ISO 31000 (2009). *Risk management: Principles and guideline*. Retrieved from
- Kayode, O. F., Obamuyi, T. M. & Owoputi, J. A. (2015). Credit risk and bank performance in Nigeria. *IOSR Journal of Economics and Finance*, 6(2), 21-28.
- Kolapo, T. F., Ayeni, R. K. & Oke, M. O. (2012). Credit risk and commercial bank's performance in Nigeria: A panel model approach. *Australian Journal of Business and Management Research*, 2(2), 31-38.
- Liebenberg, A. P. & Hoyt, R. E. (2003). The Determinants of enterprise risk management: Evidence from the appointment of chief risk officers. *Risk Management and Insurance Review*, 6(1), 37-52.
- Mohamad, N. & Mohdsaad, N. (2010). Working capital management: The effect of market valuation and profitability in Malaysia. *International Journal of Business and Management*, 5(10), 140-147.
- Muhammed, T., Shahid, O. M. Y. & Ahad, A. (2012). Credit risk and the performance of Nigerian banks. *Interdisciplinary Journal of Contemporary Research in Business*, 4(7), 49-63.
- Nachmias, F. & Nachmias, D. (2009).

- Research methods in the social sciences (5th ed.)*, United Kingdom, Hodder Educational Books.
- Nocco, B. W. & Stulz, R. M. (2006). Enterprise risk management: Theory and practice. *Journal of Applied Corporate Finance*, 18(4), 8-20.
- Nwude, E. C. & Okeke, C. (2018). Impact of credit risk management on the performance of selected Nigerian banks. *International Journal of Economics and Financial Issues*, 8(2), 287-297.
- Ogbulu, O. M. & Eze, G. P. (2016). Credit risk management and the performance of deposit money banks in Nigeria: An error correction analysis. *Applied Economics and Finance*, 3(2), 97-109.
- Olusanmi, O., Uwuigbe, U. & Uwuigbe, O. R. (2015). The effect of risk management on bank's financial performance in Nigeria. *Journal of Accounting and Auditing Research and Practice*, 2015(2015), 1-7.
- Poudel, R. P. S. (2012). The impact of credit risk management on financial performance of commercial banks in Nepal. *International Journal of Arts and Commerce*. 1(5), 9-15.
- Saunders, A. & Cornett, M. M. (2006). *Financial institutions management: A risk management approach*. New York, McGraw-Hill Inc.
- Spuchlakova, E., Valaskova, K. & Adamko, P. (2015). *The credit risk and its measurement, hedging and monitoring*. *Procedia Economics and Finance*, 24, 675-681.
- Vaughan, E. J. & Vaughan, T. M. (2003). *Fundamentals of risk and insurance (9th ed.)*. London, John Wiley and Sons.

APPENDIX I

Detailed Output of the Regression

Descriptive Statistics

	Mean	Std. Deviation	N
PFM	41.5029	49.26267	16
LQR	47.7583	23.1564	16
INR	63.2667	3.0211	16
FXR	43.1030	33.2651	16

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	LQR, INR, FXR ^b	.	Enter

- a. Dependent Variable: DCM
- b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.890 ^a	.860	.810	76.1943	.081	46.194	2	12	.000	2.064

- a. Predictors: (Constant), LQR, INR, FXR
- b. Dependent Variable: DCM

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1446.925	2	723.463	46.194	.000 ^b
	Residual	54369.723	14	2589.034		
	Total	55816.648	16			

- a. Dependent Variable: PFM
- b. Predictors: (Constant), LQR, INR, FXR

Appendix I Cont'd

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions		
				LQR	INR	FXR
1	1	2.907	1.000	.00	.01	.00
	2	.084	5.870	.00	.37	.13
	3	.008	18.758	1.00	.62	.86

- a. Dependent Variable: PFM

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	26.9752	54.7356	41.5029	7.93157	16
Residual	-119.45558	116.10837	.00000	48.61996	16
Std. Predicted Value	-1.832	1.668	.000	1.000	16
Std. Residual	-2.348	2.282	.000	.956	16

- a. Dependent Variable: PFM

EFFECTS OF ENVIRONMENTAL FACTORS ON THE PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES (SMEs) IN ABUJA, NIGERIA

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ABSTRACT

The world over, small businesses in-terms of SMEs accounts for about 60% to 80% of employment generation in the economy. This implies that the SMEs sector constitutes the largest employer of labour in many economies of the world and particularly in Africa and Nigeria in specific. Therefore, understanding the factors negating or improving the performance of this very important sector becomes desirable and germane. This study examines the effect of environmental factors on the performance of SMEs in Abuja metropolis. The target population of the paper constitutes two thousand six hundred and ninety (2690) registered SMEs operating within Abuja metropolis. A sample size of 97 respondents was determined using the Yamane formula at 10% precision level. A random sampling technique as well as stratified sampling were used in selecting the sample size of the study. Both descriptive and inferential statistics were employed to analyze the data obtained. The findings revealed that level of education of SMEs owners or managers, spending on marketing and other promotional activities, and the use of technology exact positive impact on the performance of SMEs. The current tax regime and operationalization as well as inflation also exact positive effect on the performance of SMEs. Inadequate power supply significantly negates the performance of SMEs in Abuja metropolis. The study recommends that the owners and or managers of SMEs should strive to acquire necessary and good understanding of the business environment and ensure hiring of competent and quality employees for effective running and managing of their businesses. The paper also recommends that government should continue to provide more tax incentives to SMEs sector in order to trigger more employment within the economy.

Keywords: SMEs Performance; Internal Environmental Factors; External Environmental Factors

1.0 INTRODUCTION

Improving the performance of small medium enterprises (SMEs) is a major concern because they are a significant source for creating value added, employment, innovation and economic growth. Despite the vital role of SMEs in building a competitive private sector and contributing significantly to economic growth and job creation, SMEs are facing more challenges around the world in general and in developing countries in particular. Likewise, Nigerian SMEs face numerous and serious challenges to their growth and these include the cumbersome legal and regulatory constraints, lack of access to external financing, marketing, poor infrastructure especially power supply, low human resources capacities, lack of management skills and training, and low technological capacities (Bouazzal, Ardjouman, and Abada, 2015). This section of the paper discusses background to the study, problem statement and objectives of the study among others.

1.1 Background

The Nigerian Government has made substantial effort on the development of small-scale industries; nevertheless, part of the huge SMEs problems could be traced to the government. This is mostly in the area of improper implementation of its policies towards SMEs and a serious neglect in the area of incentive and infrastructural development to facilitate business activities of SMEs. The frequent changes, and sometimes conflicting government

monetary policies, have also tended to hurt the SMEs. For instance, while the government raised total credit allocation to SMEs from 16 to 20 per cent, the same government would at the same time, remove excess liquidity in the banking industry through increase in the Monetary Policy Rate (MPR), transfer of government and parastatals accounts to the Central Bank and the creation of Stabilization Security Account (SSA) whereby the banks were debited with excess liquidity in their accounts with central banks (Ikharehon and Briggs, 2016). Another shortfall of government is the misappropriation of funds and wrong allocation of credit facilities.

Obi (2001) pointed out that the plan to provide modest loan to small scale business operations was a flop, because loans were granted in most cases on political rather than on commercial or project viability considerations. Another factor is the government's improper implementation of its policies, insufficiency of trained manpower and adequate equipment to aid the extension services it put in place to support the SMEs. Obi (2001) also pointed out that there is no adequate manpower to carry out technical appraisal of applications for loans from surging applicants. It has also been found that government policy programs on SMEs are concentrated in the cities where there is strict competition between the SMEs products and large scale business while rural areas where their

activities will impact on the macroeconomic environment through provision of employment, reduction in rural-urban migration and overall contribution to the GDP have been neglected (Ireghan, 2009; Ikharehon and Briggs, 2016).

This study investigates whether the growth and performance of SMEs in Nigeria is hampered by several interrelated factors. These factors relate to the business environmental factors that the SMEs cannot control and the SMEs' internal factors. The external factors include the legal and regulatory framework, access to external financing, infrastructure especially power, and human resources capacities. The internal factors include entrepreneur characteristics, management capacities, marketing skills, and technological capacities.

1.2 Statement of the Problem

In today's Nigeria, industries, particularly small medium enterprises (SMEs), operate under various conditions and constraints relating to their internal and external environments which militate against their organizational goals. These are high cost and shortage of raw materials, shortage of funds, inadequate technology, marketing skills, and managerial capacity. Others include firm size, location, speed of growth, and irregular power supply. Also, a section of the organized private sector contends that the various policies, incentives and

strategies so far are inappropriate to address the problems of the SMEs sub-sector, or to stimulate growth and enhance performance of the SMEs (Ojo, 2006; Ikharehon and Briggs, 2016).

The contending strategic and environmental factors above suggest that some issues that are critical to the development and performance of the SMEs have not been factored into the various strategies and management of the SMEs. These therefore calls for the reexamination and analysis of the various issues and factors responsible for the relatively low performance of the SMEs sub-sector in Nigeria. In so doing, this study highlight these critical factors, which if properly addressed, would propel SMEs performance by including marketing, level of technology in use, and business rules perception as explanatory variables which were absent in previous studies by Gbolagade, Adesola, Oyewale (2013), Ikharehon and Briggs (2016), Mba and Cletus (2014), and Kamuga, M. S., Njeru, A. &Tirimba, O. I. (2014).

1.3 Research Questions

The following research questions were raised:

- i. How do internal environmental factors affect the performance of SMEs in Abuja?
- ii. To what extent does external environmental factors affect the performance of SMEs in Abuja?

1.4 Objectives of the Study

The purpose of this study is to analyze the

effect of environmental factors affecting the performance of SMEs in Abuja. Following from the research questions, the study is guided by the following specific objectives:

- i. To examine extent to which internal environmental factors affects the performance of SMEs in the Abuja.
- ii. To assess extent to which external environmental factors affects the performance of SMEs in Abuja.

1.5 Statement of hypotheses

In line with the objectives above, the following null hypotheses were formulated:

H₀₁: Internal environmental factors do not have significant effects on the performance of SMEs in Abuja.

H₀₂: External environmental factors do not have significant effects on the

performance of SMEs in Abuja

2.0 LITERATURE REVIEW

This section examines the conceptual definition of SMEs, environmental factors affecting SMEs performance, theoretical framework, and the review of empirical studies.

2.1 Concept of SMEs

SME has no standard definition. SMEs have been identified differently by various individuals and organizations, such that an enterprise that is considered small and medium in one country is viewed differently in another country. Some common indicators employed in the various definitions include total assets, size of the labor force employed, and annual turnover and capital investments (Bouazza *et al.*, 2015). The concept of SMEs as viewed by various multilateral development partners are presented in Table 1.

Table 1: Definition of SMEs as Used by Multilateral Institutions

Institution (Region or Country)	Maximum number of Employees	Maximum Revenue or Turnover	Maximum Assets
European Union	10-250	40 Million Euros	-
World Bank	300	15 Million Dollars	15 Million Dollars
IMF	100	3 Million Dollars	-
African Development Bank	50	-	-
UNDP	200	-	-
OECD	20-500	-	-
SMEDAN	10-49	5 to 49 Million Naira	-

Sourced: Bouazza *et al.* (2015) and modified by researchers

It is obvious from Table 1 that no single definition of SMEs exists among officials of multilateral development institutions and in Nigerian context.

2.2 The Environmental Factors that Affect SMEs' Performance

Researchers have used different approaches to explain the factors affecting the growth of SMEs. Some of them have considered environmental factors to have a big impact on the performance and growth of small firm's (Lumpkin and Dess, 1996). The environmental factors that affect SMEs performance could be internal or external factors and are examined in this subsection.

2.2.1 External Environmental Factors Affecting SMEs

The external environmental factors are those that the businesses do not have the capacity to influence. We can summarize the external factors affecting the growth of SMEs as follows:

2.2.1.1 Legal and Regulatory Framework

According to Lumpkin and Dess, (1996) the growth of SMEs are affected by its business climate. An unfavorable business climate in the form of legal and regulatory environment has negative effect on SMEs growth. Also, an unfavorable tax system, complicated rules and regulations can heavily hamper small firms' performance. Krasniqi (2007) showed that the cost of

complying with regulations and increased tax rates increases small firms' expenses while limiting their growth. Likewise, St-Jean, E., Julien, P., & Jos'ee, A. (2008) noted that cumbersome regulations, and tax rates are the main obstacles on small business growth.

2.2.1.2 Inadequate Power Supply

A study done by International Finance Corporation (IFC; 2013), based on responses of more than 45,000 firms in developing countries, found that the top obstacles to their operations are a poor investment climate due to high tax rates, competition from the informal sector, and inadequate infrastructure, especially an insufficient or unreliable power supply. Whereas informality is a major hindrance of SMEs in middle-income countries, an inadequate power supply is the most important challenge for companies in low-income countries.

2.2.1.3 Access to Finance

Lack of access to external financing is considered a major challenge to the growth and performance of SMEs, and it has accounted for high rates of failure among those SMEs. In developing countries, SMEs face greater financing obstacles than large firms do. According to Shah *et al.* (2013), financial institutions behave more cautiously when providing loans to SMEs, and SMEs are usually charged comparatively high interest, high

collateral and loan guarantees. Krasniqi (2007) find that loan policies and collateral requirements discourage firms from obtaining loans from banks. Also, small firms have less access to external financing, which makes them to be more restrained in their operations and growth compared to large firms. Ayyagari, M., Asli, D. K. & Vojislav, M. (2006) shows that financing, crime, and political instability directly affect the rate of growth of small firms, with financing being the most significant constraint affecting small firms' growth. Rocha R., Farazi S., Khouri R., & Pearce, D. (2011), found that access to financing is among the most binding obstacle to SMEs' performance while other obstacles appear to matter much less.

2.2.1.4 Competition

Competition has been identified as one of the major hindrances to the growth of small firms (Bouazzaiet al., 2015). Small and large firms could be producing similar products. Since they go to the same market to buy their raw materials, operate in the same banking system, and access the same advertising media, the big firms and indeed older small firms have greater opportunities and advantages than the small firms especially the new ones. This affects the growth and performance of SMEs.

2.2.2 Internal Environmental Factors Affecting SMEs

Success and failure of SMEs is not only related to external business environment

aspect. It also depends on firms' internal factors that are key and strategic, which can be summarized as follows:

2.2.2.1 Characteristics of Entrepreneurs

Entrepreneur characteristics have been extensively studied, with mixed results on the impact on small firm growth. Several studies convincingly confirmed that some characteristics have positive and significant relationships with small firm growth while other studies find insignificant relationships (Sidika, 2012). Some authors have approached their studies from the perspective of the mindset and personality of the entrepreneur while others have looked at it from the perspective of the entrepreneur's education, family background, and capability (Bouazzaiet al., 2015; Kor, 2003). The personal role of the entrepreneur and his growth aspirations have also been identified as a factor that could enhance performance (Pasanen, 2007; Bouazzaiet al., 2015). Entrepreneurs' stable and inherent characters influence how they manage their businesses. In addition, they will tend to conduct their business based on the strengths of their specific characteristics (Sidika, 2012). Many other aspects have been examined regarding the characteristics of entrepreneurs such as age, gender, motivation, experience, educational background, risk-taking propensity, and preference for innovation (Pasanen, 2007; Sidika, 2012).

2.2.2.2 Managerial Capacities

Several studies have considered the

management capacities of the top management team as key factors for small business growth. According to Olawale and Garwe (2010), management capacities are sets of knowledge, skills, and competencies that can make the small firm more efficient. Singh, R., Garg, S. & Deshmukh, G. S. (2008) emphasized that management skills are necessary for SMEs to survive and achieve growth. Aylin, A. Garango, P., Cocca, P. & Bititchi, U. (2013), stated that management skills are a crucial factor for the growth of SMEs and that the lack of management skills is a barrier to growth and is one of the factors that can lead to failure. Pasanen (2007) suggests that the growth pattern of small firms is associated with their managerial capacities. Bhide (1996) notes that a shortage of core competence and a skilled top management team is one of the main challenges faced by SMEs.

2.2.2.3 Marketing Skills

Marketing skills have been considered as one of the most effective factors to firm survival and growth. According to Van Scheers (2012) the lack of marketing skills has a negative impact on the success of small businesses. Pandya (2012) noted that marketing limitations of an SME resemble other limited resources such as financial and human resources.

2.2.2.4 Human Resources Capacities

Human resources capacities form one of the most significant factors for the development of small firms. Firms with a skilled and well-educated workforce are

likely to be more efficient. As noted by Lee (2001), human resource capacities form one of the most significant areas for the success of SMEs. In general, human resource capacities have a positive effect on the growth of small firms, which increase employee skills and motivation, and eventually result in improving the productivity and long-term sustainability of small firms (*Bouazzaiet al., 2015*).

2.2.2.5 Technological Capacities

Drucker (1985) noted that new technologies improve efficiency, enable greater production, and are a source of profit for SMEs. Technological capabilities benefit SMEs in several ways: they enhance SME efficiency, reduce costs, and broaden market share, both locally and globally (*Bouazzaiet al., 2015*). As noted by Lee (2001), a small business that adopts greater levels of technological sophistication can be expected to grow more rapidly than a similar firm that does not. Romijn (2001) pointed out that low technological capabilities hinder and discourage SMEs from fully reaching their potential. Countries with high levels of technological growth tend to have high levels of entrepreneurial growth (*Bouazzaiet al., 2015*). From the foregoing, we could conclude that the growth and performance of SMEs is dependent on a range of internal and external factors.

2.3 Theoretical Framework: The Balanced Scorecard (BSC)

The BSC theory suggests that managers should view organization's performance

from four facets, customer perspective, internal perspective, innovation and learning perspective, and financial perspective (Kamuga, M. S., Njeru, A. & Tirimba, O. I. 2014). BSC incorporates financial and non-financial measures in one measurement system. The objectives and measures of BSC are derived from an organization's vision and strategy. The Balanced Scorecard provides executives with a comprehensive framework that translates a company's vision and strategy into a coherent set of performance measures.

According to Kaplan and Norton (1996) as cited in Kamuga *et al.* (2014), the balanced scorecard not only allows the monitoring of present performance, but also tries to capture information about how well the organization is positioned to perform in the future. Furthermore, the Balanced Scorecard has evolved to become a core management tool, in that it helps CEOs not only to clarify and communicate strategy, but also to manage strategy. In practice, companies use the BSC approach to accomplish four critical management processes; clarify and translate vision and strategy, communicate and link strategic objectives and measures, plan, set targets, and align strategic initiatives and enhance strategic feedback and learning.

2.4 Review of Empirical Studies

A number of empirical studies have been conducted on the impact of environmental factors on SMEs. These include the work of Bouazzai, Ardjouman and Abada (2015) that examined the factors that influence the

growth rate of small medium-sized enterprises (SMEs) in Algeria and explores the extent to which their success or failure depends on the wider business climate. The study also examines different internal factors that may be responsible for the unstable and limited growth of SMEs, and the research reveals that the growth of SMEs in Algeria is hampered by several interrelated factors, which include business environmental factors that are beyond the SMEs' control and internal factors of the SMEs.

In another study, Rusu and Roman (2016) analyzed the evolution of the SMEs performance in terms of employment in the last years, and further examined which of the macroeconomic performance indicators are influencing the growth of SME's employment in seven CEE countries. The study used correlation and multiple linear regression models on panel data. The results show that GDP, total private final consumption, gross capital formation and wages have a strong influence on SMEs employment.

Gbolagade, Adesola, Oyewale (2013) investigated the impact of marketing strategy on business performance of selected SMEs with Oluyole local government area Ibadan, Nigeria as special reference. A survey research design method was used with a self-design questionnaire for collecting data from one hundred and three (103) respondents. The instrument used in the study is a close-ended questionnaire that was designed by the researchers. Correlation coefficient

and multiple regression analysis were used to analyze the data. The findings show that the independent variables (i.e product, promotion, place, price, packaging, and after sales service) were significant joint predictors of business performance in terms of profitability, market share, return on investment, and expansion.

Similarly, Ikharehon and Briggs (2016) in their paper examined the impact of strategic factors on the performance of small and medium scale enterprises in Nigeria. *The target population of the paper constitutes four hundred and fifty (450) enterprises, representing 18% of 2500 registered SMEs operating within Abuja metropolis. A sample size of 97 respondents was determined using the Yamane formula. A random sampling technique was used in administering questionnaires to the respondents, and it was however administered in a way to give each respondent equal opportunity of being selected to be part of the study. The findings revealed that insufficient capital, deficiencies in infrastructure and inadequate fiscal incentives framework are the main challenges facing the Small and Medium scale enterprises in Nigeria.*

Mba and Cletus (2014) examined the issues, challenges and prospects of small and medium scale enterprises (SMEs) in Port-Harcourt City, Nigeria. The paper adopted a descriptive research design using 120 randomly selected registered operators of SMEs in Port-Harcourt city. Data collected were analyzed using descriptive statistics while formulated hypotheses were tested using z-test. Results from the data analysis indicated

that poor financing, inadequate social infrastructures, lack of managerial skills and multiple taxation were major challenges confronting SMEs in Port-Harcourt city.

Bouazzai, A. B. Ardjouman, D. & Abada, O. (2015) in their study sought to establish the factors affecting the performance of small and micro enterprises (SMEs) traders at Limuru town market in Kiambu County, Kenya. The study employed a descriptive research design to achieve the objectives. The target population under study was the 965 licensed SMEs by Limuru sub-county operating in Limuru Market in 2014. The study used a questionnaire to collect the required data from a sample of 274 SMEs. The data collected was coded, quantified and analyzed quantitatively and qualitatively. Quantitative data was analyzed by the use of statistical package for social sciences (SPSS). The study concluded that access to finance and availability of management experience are the key socio-economic factors affecting the performance of businesses in Limuru Town Market. The other key factors that were found to affect businesses in Limuru Town Market positively are: access to business information, access to infrastructure and government policy and regulations.

In view of the above literature reviewed, in today's Nigeria, industries, particularly small medium enterprises (SMEs), operate under various conditions and constraints relating to their internal and external environments which militate against their

organizational goals. These are high cost and shortage of raw materials, shortage of funds, inadequate technology, marketing skills, and managerial capacity. Others include firm size, location, speed of growth, and irregular power supply. Also, a section of the organized private sector contends that the various policies, incentives and strategies so far are inappropriate to address the problems of the SMEs sub-sector, or to stimulate growth and enhance performance of the SMEs (Ojo, 2006; Ikharehon and Briggs, 2016).

The contending strategic and environmental factors above suggest that some issues that are critical to the development and performance of the SMEs have not been factored into the various strategies and management of the SMEs. These therefore calls for the reexamination and analysis of the various issues and factors responsible for the relatively low performance of the SMEs sub-sector in Nigeria. In so doing, this study highlight these critical factors, which if properly addressed, would propel SMEs performance by including marketing, level of technology in use, and business rules perception as explanatory variables which were absent in previous studies by Gbolagade, Adesola, Oyewale (2013), Ikharehon and Briggs (2016), Mba and Cletus (2014), and Kamuga, M. S., Njeru, A. &Tirimba, O. I. (2014). Therefore, this provide the need for the research problem in order to be addressed.

3.0 METHODOLOGY

The research is conducted in order to investigate the potential factors that affect the start-up and hinder the development of SMEs in Abuja. In order to achieve the research goals, the study employed both qualitative and quantitative methods. The study reviewed the literature in an exploratory nature in order to explain and comprehend the research findings on the environmental factors that constrain the growth and performance of SMEs. A quantitative method was employed to measure the factors that affect the development of SMEs in Abuja following the work of Ikharehon and Briggs (2016). For this purpose, *the target population of the paper constitutes two thousand six hundred and ninety (2690) registered SMEs operating within Abuja (SMEDAN, 2015). A sample size of 96 respondents was determined using the Yamane formula as specified below.*

$$n = \frac{N}{1+N(e)^2} \dots\dots\dots (1)$$

Where: n = sample size
N = population size
1 = constant term
e = margin of error

Given that the population of the SMEs is 2690, a 95% confidence level, and thus 5% level of precision are assumed for the study. Therefore, the sample size of the study can be determined as follows:

$$= 96$$

From the above sample size, the study added a margin of 30% as posited by

kothari, (2011) in order to make up for non-returned questionnaire. Therefore, 30% of 96 is 29. Therefore, 96 + 29 = 125. In view of this, the total number of sampled respondents stands at 125.

A random sampling technique as well as stratified sampling were used in administering questionnaires to the respondents, and it was however administered in a way to give each respondent equal opportunity of being selected to be part of the study (Kothari, 2011). The respondents are the SMEs owners and managers spread across the six area councils of the Federal Capital Territory (FCT). The profitability and size of employees of SMEs is used as index for measuring performance following the work of Ikharehon and Briggs (2016) and Kamugaet al. (2014). The independent variables are the level of education of owner, size of funds for marketing, perception of tax system, perception of level of complication of business rules, perception of inflation as hindrance to SMEs performance, adequacy of power supply, ease of sourcing for finance, and the level of technology in use. The responses of the respondents regarding these variables were coded and fed into the SPSS, regressed using ordinary least squares (OLS) technique, and then analyzed. The model for the study is specified as follows.

$$PERF = \beta_0 + \beta_1 EOWN + \beta_2 MSIZE + \beta_3 PTAX + \beta_4 BRUL + \beta_5 PINF + \beta_6 APOW + \beta_7 LTEC + u \dots \dots \dots (1)$$

Where:

PERF = Profitability and size of employees of the SMEs

EOWN = Educational level of business owner or manager

MSIZE = Skills and Size of funds for marketing and promotions

PTAX = Perception of tax system

BRUL = Perception of level of complication of business rules

PINF = Perception of inflation as hindrance to SMEs performance

APOW = Access to adequate power supply

LTEC = Level of technology in use

U_1 = Error Term

β_0 = Intercept

$\beta_1, \beta_2, \dots, \beta_7$ = Coefficients of the explanatory Variables

4.0 RESULTS AND DISCUSSIONS

This section focuses on presentation, analysis and interpretation of the data collected through the use of questionnaires that were distributed to the respondents under consideration. This section is in four subsections with the next dealing with the response rate. Thereafter, the study examined the reliability test, descriptive statistics, and regression results.

$$n = \frac{2690}{1 + 2690(0.1)^2} = \frac{2690}{27.9}$$

4.1 Response Rate

Table 1: Analysis of Returned and Unreturned Questionnaires

Options	No of Respondents	Percentage %	Cumulative
Returned	95	76	76
Unreturned	30	24	100
Total	125	100	100

Source: Field survey (2019)

The table and graph above show that out of 125 questionnaires distributed, 95 representing 76%, were filled and returned while 30 representing 24% were not returned.

4.1 Reliability Results

To ensure and ascertain the reliability of the research instruments (items), Cronbach's basic alpha reliability test was employed.

Table 2 Reliability Statistics

S/n	Constructs/Items		No. of Items
1	SMEs Performance and Environmental Factors	0.756	8

Source: Computed with SPSS 21

According to Ndiyo (2005), constructs/items are internally consistent with each other if their Cronbach's alpha value is equal to or more than 0.70. From the table above, the Cronbach's alpha values of the

constructs exceed 0.70. This indicates the degree of internal consistency among the variables or scales used to measure the effect of environmental factors on the performance of SMEs in Abuja FCT

4.2 Descriptive Statistics

Table 3: Environmental Factors and SMEs Performance

Code	Statement	SA (5)	A (4)	SD (3)	D (2)	UD (1)	Total %	Mean	SD	t-stat	Remarks
Perf	It could be said that your performance in terms of profitability and number of employees has been high in recent time	27 (28%)	35 (37%)	15 (16%)	15 (16%)	3 (3%)	95 (100)	3.72	1.13	3.29	Accepted
EOWN	The level of education of business owner has positive	18 (19%)	40 (42%)	19 (20%)	10 (11%)	8 (8%)	95 (100)	3.43	1.24	2.77	Accepted
MSIZE	The funds earmarked by your firm for advertisement, sales promotion and other marketing activities are sufficient and enhance your performance	28 (29%)	33 (35%)	20 (21%)	12 (13%)	2 (2%)	95 (100)	3.77	1.08	3.40	Accepted
PTAX	The tax system as being operationalized in Nigeria has positive impact on your business performance	21 (22%)	40 (42%)	15 (16%)	15 (16%)	4 (4%)	95 (100)	3.62	1.09	3.32	Accepted
BRUL	The business rules are complicated but they do not affect your performance	9 (9%)	16 (17%)	29 (31%)	36 (38%)	5 (5%)	95 (100)	2.87	1.31	2.19	Rejected
PINF	Inflation or persistent rise in the price level has positive impact on performance	25 (26%)	28 (30%)	20 (21%)	15 (16%)	7 (7%)	95 (100)	3.46	1.29	2.68	Accepted
APOW	The power supply is adequate and has improved your business performance	7 (7%)	12 (13%)	38 (40%)	35 (37%)	3 (3%)	95 (100)	2.84	1.27	2.23	Rejected
LTEC	The level of technology in use in your firm is adequate and has improved your performance	25 (26%)	30 (32%)	18 (19%)	19 (20%)	3 (3%)	95 (100)	3.58	1.04	3.44	Accepted

Source: Field Survey 2019

Table 3 shows the response rate on the effect of environmental factors on the performance of SMEs in Abuja metropolis. As it can be seen, the result indicates that performance of SMEs in terms of profitability and number of employees has been on the increase in recent time given a mean and t-statistics value of (M=3.72 t-stat=3.29). Furthermore, the respondents also agreed that the level of education of business owner has positive impact on their SME's performance as this is supported with a mean and t-statistics value of (M=3.43; t-stat=2.77). Also, the respondents agreed that the funds earmarked by the firm for advertisement, sales promotion and other marketing activities are sufficient and enhance their performance, as supported with a mean and t-statistic value of (M=3.77; t-stat=3.40).

In addition, the respondents also agreed

that the tax system as being operationalized in Nigeria has positive impact on business performance, this is further supported by a mean and t-statistic value of (M=3.62; t-stat =3.32). The business rules are complicated but they do not affect SMEs performance, as evident by the mean and t-statistic value of (M=3.38; t-stat=2.89). More so, the respondents are of the view Inflation or persistent rise in the price level has positive impact on performance. This is so true going by the mean and t-statistic value of (M=3.46; t-stat=2.68). The respondents rejected that the power supply is adequate and has improved their business performance as can see by the mean and t-statistics of 2.84 and 2.23 respectively. Lastly the respondents also agreed that the level of technology in use in SMEs is adequate and has improved their performance as evident by a mean and t-statistic value of (M=3.58; t-stat =3.44).

4.3 Regression Analysis (Inferential Statistics)

Table 4: Regression Result, Dependent Variable (SMEs Perf)

Variable	Co-efficient	Standard Error	t-Statistic	Probability
C	.717	.118	6.093	.000
EOWN	.361	.124	2.92	.004
MSIZE	.52	.162	.316	.753
PTAX	.174	.128	1.357	.178
BRUL	-.174	.157	-1.111	.270
PINF	.178	.171	1.262	.210
APOW	-.107	.108	-.992	.024
LTEC	.944	.127	3.873	.000
R ²			0.917	
Adj. R ²			0.910	
F-statistic			3.410	
Prob. (F-stat.)			0.000	

Source: Authors computation (SPSS 21)

The effect of internal and external environmental factors on the performance of SMEs in Abuja Metropolis was investigated using regression analysis. The regression result reveals that educational level of business owner or manager (EOWN) exerts a positive effect on the performance of SMEs. Implying that a unit increase in EOWN will invariably lead to a unit increase on the SMEs performance by 0.361 units. This impact is not only positive but statistically significant at 1% as observed by the p-value. The result further shows that spending on advertisement, sales promotion and other marketing activities (MSIZE) has a positive impact on the performance of SMEs signifying that a unit increase in MSIZE on the average lead to a corresponding unit increase on the SMEs performance by 0.52 units. Though, this impact is positive but statistically insignificant at 5% level.

In addition, the coefficient of PTAX ($\beta=0.173$) shows that the tax system as being operationalized in Nigeria has positive impact on the performance of SMEs in Abuja metropolis. However, the impact is positive but not statistically significant at level. Complication of business rules (BRUL) is exacting negative impact on the performance of SMEs in Abuja Metropolis. Implying that a unit increase in stringent rules invariably lead to decrease in the performance of SMEs by 0.174 units

PINF is found to exact positive influence of the performance of SMEs on the average by 0.17. Although the influence is not statistically significant at any level. On the

other hand, the regression result indicates that inadequate Power Supply (APOW) ($\beta=-0.107$) has a negative impact on the performance of SMEs. This negative impact is statistically significant at 5% level. Lastly, LTEC, proxy as use of technology in business by SMEs has a coefficient ($\beta=0.944$) implying a positive impact on the performance of SMEs and is statistically significant at 1% as evident by the p-value.

The result further reveals that R-Square 0.92 indicating the proportion of variation in SMEs performance due to the interactions of the independent variables while about still 0.91 is the proportion of variance in SMEs performance that is accounted for both the internal and external environmental factors after taking care of degree of freedom (df). The F-statistic value of 3.410 gives us enough evidence that the parameter estimates of the regressed model are jointly statistically significant there by validating the R-squared and Adjusted R-squared, this is further affirmed by the very low probability value of f-statistic (i.e. 0.000). Thus, the estimated model is fit for both policy formulation and forecasting.

4.4 Discussion of Findings

This study was carried out with the aim of achieving two (2) specific research objectives. The paper categorized environmental factors influencing the performance of SMEs into two major types i.e. the internal factors and the external environmental factors. The internal factors are those variables negating or improving

the performance of SMEs which falls within the constraint of the firm. This means that, the internal factors are both the strength and weaknesses of the business going by the SWOT parameters. These are factors that if the firm properly managed and controlled would invariably lead to enhanced performance. For this study internal environmental factors include educational level of business owner or manager (EOWN), skills and size of funds for marketing and promotion (MSIZE), and level of technology in use (LTEC). On the other hand, the external environmental factors are those variables falling outside the purview of the firm. SMEs have seemingly little or no influence over them. The external environmental factors are; perception of tax system (PTAX), perception of level of complication of business rules (BRUL), rate of inflation (PINF) and access to adequate power supply (APOW). Generally, findings from the survey reveals as follows;

On the educational level of business owner or manager as an internal environmental factor affecting the performance of SMEs in Abuja Metropolis, findings emanating from the paper revealed that the level of education of SMEs owners or managers exact positive and significant impact on the performance of SMEs. The implication of this, is that the more the firm have good knowledge about the nuances of business environment as well as acquiring qualified and experienced manager the better the performance will be. Good knowledge and experienced manager(s) will trigger the formulation of strategies that will enable

the firm have a competitive advantage within the subsector they are operating. This finding is in consistent with the work of Kamuga *et al.* (2014) who submitted that access to finance and availability of management experience are the key socio-economic factors affecting the performance of businesses in Limuru Town Market in Kenya. Also, Mba and Cletus (2014) concluded that lack of managerial skills is among the major challenges confronting SMEs in Port-Harcourt city.

The paper further examined the extent to which spending of funds for marketing and other promotional activities (MSIZE) affects the performance of SMEs in Abuja Metropolis. The paper reveals that MSIZE has a positive impact on the performance of SMEs. The implication is that, as SMEs are creating more awareness about the existence of their product(s) and services through advertisement and other promotional sales, it consequently translate to improving the performance. This is evident going by theoretical postulations of kotler (1995). This finding reaffirmed the findings of Gbolagade, Adesola, Oyewale (2013) who showed that *product, promotion, place, price, packaging, and after sales service were significant joint predictors of business performance in terms of profitability, market share, return on investment, and expansion in Ibadan.*

Furthermore, the paper evaluates the extent to which level of technology use by SMEs owners or managers enhances the performance of SMEs in Abuja

Metropolis. The result indicates that LTEC has a positive impact on the performance of SMEs in the study area. The implication of this outcome signifies that the more SMEs and other corporate firms apply technology in conducting their businesses the more its performance will be. This outcome corroborates with *Bouazzai et al. (2015)* who conclude that technological capabilities benefit SMEs in several ways: they enhance SME efficiency, reduce costs, and broaden market share, both locally and globally.

The paper goes further to evaluate extent to which operationalization of tax system in Nigeria (PTAX) as an external factor influences the performance of SMEs in Abuja metropolis. Finding emanating from the paper reveal that the current tax system exacts a positive impact on the performance of SMEs in Abuja metropolis. This can be true as many SMEs are giving a moratorium of about 5 years from the initial start of business before they are keyed in into the tax net of FIRS. Also tax incentives improve the performance of SMEs as money intended to be paid for tax are invariably put back into the business for growth and expansion. This outcome is in tandem with other extant empirical studies.

5.0 CONCLUSION AND RECOMMENDATIONS

The world over, small businesses in-terms of SMEs accounts for about 60% to 80% of employment generation in the economy. This implies that the SMEs sector constitutes the largest employer of labour in many economies of the world and

particularly in Africa and Nigeria to be specific. Therefore, understanding the factors negating or improving the performance of this very important sector becomes desirable and germane. This study examines the effect of environmental factors on the performance of SMEs in Abuja metropolis. The environmental factors were subdivided into two i.e internal and external factors. The paper concludes that the level of education of SMEs owners or managers, spending on marketing and other promotional activities, the level of technology in use, current tax regime and operationalization, and inflation were found to exact positive impact of the performance of SMEs. This implies that some external and all the internal environmental factors examined have positive impact on SMEs performance. However, only educational level of SMEs owners and level of technology in use were found to be statistically significant. On the other hand, inadequate power supply and complicated business rules have negative implications on the performance of SMEs in Abuja metropolis but only inadequate power supply is statistically significant. In view of the findings and conclusion of this paper, the following recommendations are suggested;

- i. The owners and or managers of SMEs should strive to acquire necessary and good understanding of the business environment. They should strive to ensure they hired competent and quality employees for effective running and managing of their

- businesses. There should be training and retraining programs to enhance their capacity and that of their employees.
- ii. SMEs should continue to spend more and optimally on advertisement and other promotional and marketing activities necessary to create more awareness about the products and services they offer to the market.
 - iii. SMEs should embrace the utilization of technology necessary for improved performance, and should embrace continued research and development as part of their operations.
 - iv. Government should continue to provide more tax incentives to SMEs sector in order to trigger more employment within the economy.
 - v. No business can survive without adequate power supply. It is therefore recommended that government should improve on the provision of infrastructural facilities especially power supply to enable SMEs operate with least cost possible in order to improve their profitability and survival.

REFERENCES

- Aylin, A. Garango, P., Cocca, P. & Bititchi, U. (2013). "The Development of SME Managerial Practice for Effective Performance Management". *Journal of Small Business and Enterprise Development*. Vol. 20 (1). PP. 2854
- Ayyagari, M., Asli, D. K. & Vojislav, M. (2006). "How Important Are Financing Constraints? The Role of Finance in the Business Environment", World Bank Policy Research Working Paper, No. 3820.
- Bhide, A. (1996). "The questions every entrepreneur must answer". *Harvard Business Review*, 74, 120–130.
- Bouazza, A. B. Ardjouman, D. & Abada, O. (2015). "Establishing the Factors Affecting the Growth of Small and Medium-sized Enterprises in Algeria". *American International Journal of Social Science* 4(2), pp. 101-115.
- Drucker, P. F. (1985), *Introduction to Innovation and Entrepreneurship*, Harper & Row Publishers, New York, 1–17.
- Gbolagade, A. Adesola, M. A. & Oyewale I. O. (2013). "Impact of Marketing Strategy on Business Performance: A Study of Selected Small and Medium Enterprises (SMEs) in Oluyole Local Government, Ibadan, Nigeria". *IOSR Journal of Business and Management (IOSR-JBM)*, 11(4); pp. 59-66.
- Ikharehon, J. I. & Briggs, J. I. A. (2016). "The Impact of Strategic Factors on the Performance of Small and Medium Scale Enterprises in Nigeria: A Study of Some Selected Small and Medium Scale Enterprises in Abuja", *International Journal of Humanities and Social Science*, 6(2); 140-149.
- Kamuga, M. S., Njeru, A. & Tirimba, O. I. (2014). "Factors Affecting the Performance of Small and Micro Enterprises in Limuru Town Market of Kiambu County, Kenya". *International Journal of Scientific and Research Publications*, 4(12), pp. 1-20.
- Kor, Y. & Mahoney, J. (2004). Edith Penrose's (1959). "Contributions to the Resource-based View of Strategic Management". *Journal of Management Studies*, 41(1), 0022-2380.
- Krasniqi, B. A. (2007). Barriers to entrepreneurship and SME growth in transition: The case of Kosova. *Journal of Developmental Entrepreneurship*, 12(1), 71–94.
- Lee, J. (2001), "Education for Technology Readiness: Prospects for Developing countries", *Journal of Human Development*, 2(1), 115–151.
- Lumpkin, T., & Dess, G. (1996). "Clarifying the Entrepreneurial Orientation Construct and Linking it to Performance". *Academy of Management Review*, 21(1), 135–172.
- Mba, O. A. & Cletus, I. E. (2014). "Issues, Challenges and Prospects of Small and Medium Scale Enterprises (SMEs) in Port-Harcourt City, Nigeria". *European Journal of Sustainable Development*, 3(1), pp. 101-114
- Obi, P. (2001). Ensuring the Socio-Economic Growth of a Nation. A Paper Presented at a Conference in Johannesburg between 12th and 15th December, p. 8.
- Olawale, F. & Garwe, D. (2010). "Obstacles to the Growth of New SMEs in South

- Africa: A Principle Component Analysis Approach". *African Journal of Business and Management*. 4 (5). PP 729-738.
- Pandya, V. (2012). Comparative analysis of development of SMEs in developed and developing countries. The 2012 International Conference on Business and Management: 6 - 7 September 2012, Phuket - Thailand.
- Pasanen, M. (2007). "SME Growth Strategies: Organic or Non-organic"? *J. Enterprising Culture*, 15 (317). Pp. 108-120.
- Rocha R., Farazi S., Khouri R., & Pearce, D. (2011). The Status of Bank Lending to SMEs in the Middle East and North Africa Region: Results of a Joint Survey of the Union of Arab Banks and the World Bank. Policy Research Working Paper, No. 5607.
- Romijn, H. (2001). "Technology Support for Small Industry in Developing Countries: A Review of Concepts and Project Practices". *Oxford Development Studies*, 29(1), 57-76.
- Rusu, V. D. & Roman, A. (2016). "The Impact of Macroeconomic Conditions on SMEs Performance in Terms of Employment". *Revista Economica*. 68(3); pp. 142-159.
- Shah, S.F.H., Nazir, T., Zaman, K., & Shabir, M. (2013). "Factors Affecting the Growth of Enterprises: A survey of the Literature from the Perspective of Small- and Medium-sized Enterprises". *Journal of Enterprise Transformation*, 3, 53-75.
- Sidika, I. (2012). Conceptual framework of factors affecting SME development: Mediating factors on the relationship of entrepreneur traits and SME performance. Proceedings from ICSMED 2012: International Conference on Small and Medium Enterprises Development. *Procedia Economics and Finance* 4, 373-383.
- Singh, R., Garg, S. & Deshmukh, G.S. (2008) Strategy Development by SMEs for Competitiveness. *A Review Benchmarking an international journal*. 15 (5), pp. 525-547
- St-Jean, E., Julien, P., & Jos'ee, A. (2008). "Factors Associated with Growth Changes in Gazelles". *Journal of Enterprising Culture*, 16, 161-188.
- Van-Scheers, L. (2011). "SMEs' Marketing Skills Challenges in South Africa". *African Journal of Business Management*, 5(13), pp. 22-34.

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ABSTRACT

Over the years Airtel Telecommunications Company has continued to experienced poor service delivery, change in management and identity which has affected its performance. This study is an attempt to examine the effect of entrepreneurial orientation and performance of Airtel Telecommunication Company in Nigeria. The specific objectives of the study were to; analyze the effect of innovativeness on performance; examine the effect of risk taking on performance; determine the effect of proactiveness on performance; analyze the mediating effect of organizational climate on innovativeness and performance; ascertain the mediating effect of organizational climate on risk taking and performance and lastly, to determine the mediating effect of organizational climate on proactiveness on performance of Airtel Telecommunications Company in Nigeria. A survey research design was used while questionnaires were used to collect data and analyzed using a hierarchical regression model. Findings revealed that innovativeness has significant effect on performance of Airtel Telecommunication Company in Nigeria; Risk taking has no significant effect on performance of Airtel Telecommunications Company in Nigeria; Proactiveness has significant effect on performance of Airtel Telecommunications Company in Nigeria. The result further indicates that organizational climate fully mediates the relationship between proactiveness and firm performance while mediating partially the relationship between innovation and firm performance. The study thus concluded that organizational climate mediates between entrepreneurial orientation and performance of Airtel Telecommunications Company in Nigeria. The study recommended that Airtel Telecommunication Company need to imbibe the culture of training and retraining of its employees so that the company can be up-to-date especially in areas of technological development.

1.0 INTRODUCTION

The Nigerian telecommunication industry has made reliable developmental progress; from state owned to liberalization, from a weak competition and to one which is grown, and presently to service innovation stage (Adi, 2015). It was estimated that the Nigeria telecommunication sector alone has contributed to GDP increase of 0.62 % in 2002 and 8.53% in 2013 providing both direct and indirect jobs (Bloomberg Business week, 2009). Despite the enormous contributions of the sector to the economy of Nigeria, the sector is yet to attain the desired level of performance (Chidioze, Lawal, & Ajai. 2015). Given the total number of active subscribers in 2018 which stood at 169 million (NCC, 2018), one will literally consider the industry as not only attractive but profitable. Adeola, Adebayo, and Ekejuba (2016) and El Rufai (2016) argue that the sector has experienced different challenges ranging from ineptitude and poor service delivery. Airtel Company has had cause to change its management and identity almost four times, which has affected its capacity to be competitive contributing to its current level of performance (Olajide, 2005; Olumide, 2011; Falano & Popoola, 2013). Models have been proposed to account for the variation in firm performance one of which is entrepreneurial orientation, which is proxied as innovativeness, risk taking and proactiveness (Miller, 1983). Therefore, the question is; is the poor performance of Airtel company as a result of lack of innovativeness? Is the company afraid to take risk? Or could it be that the company has not been proactive? Does the

perception of employees towards innovativeness, risk taking and proactiveness responsible for the poor level of performance by the company?

Entrepreneurial orientation (EO) is one of the dominant constructs in entrepreneurship and border management research evident by the number of recent reviews of EO literature conducted (Covin & Miller, 2014). The origin of the concept has previously been addressed in nascent studies (Anderson, Kreiser & Kuratko 2015; Basso, Fayolle, & Bouchard, 2009; Covin & Wales, 2012; Edmond & Wiklund, 2010) with Covin and Lumpkin (2011) asserting that with the monumental level of theoretical acceptance on EO construct, entrepreneurship is considered more as a singular act or activity. Frese, Brantjes and Hoorn (2002) viewed EO as a psychological concept in the sense of an attitude to orientation. Miller (1982), Covin and Slevin (1991) on their part described EO in terms of innovation, assuming a risky venture and to be proactive in decisions and actions. Lumpkin and Dess (1996) further incorporated two additional variables to EO to include autonomy and competitive aggressiveness and also viewed EO as a multi-dimensional construct as opposed to Covin and Slevin (1991) and Miller (1982) uni-dimensional construct. The study adopted three variables of EO by Miller (1982) and Covin and Slevin (1991) to include; innovativeness, risk taking and proactiveness.

Studies on EO have been extensively carried out in several facet of management including EO on performance (Covin & Slevin 1986; Wiklund 1999; Lumpkin & Dess, 2011), profitability and growth (Davis 2007; Guidic & Reinmoeller, 2013) have indicated a positive effect. However, these studies failed to access the role of organizational climate in mediating between the variables of EO and performance particularly in the telecommunication sector in Nigeria. This study proposes to use organizational climate as a mediator in the relationship between EO and firm performance. Organization climate consist of all internal aspects of organization which are clearly defined by senior management of the organization and which impresses the behavior of all members of the organization (Bagheri, Yarjanili, Mowlanpour & Mahdinasub, 2016). It therefore means that the perception of employees in the organization will influence the perception of EO in the organization. Zmud (1988) is of the view that rather than structure of the organization, the perception of employees in work environment determines the attitude towards risk, innovativeness and the degree to which they are responsive to change in the organization.

It is view of the above that the study was carried out to ascertain the effect of EO, organizational climate and performance in the telecommunication sector in Nigeria. Specifically, the study analyzed the effect of innovativeness and performance, risk-taking and performance as well as pro-

activeness and performance. The study mediated organizational climate on innovativeness and performance, to ascertain the mediating effect of organizational climate on risk taking and performance and lastly to determine the mediating effect of organizational climate on proactiveness and performance of Airtel telecommunications company.

The study is structured as follows; the introduction, theoretical foundation and hypotheses, the concepts of EO and performance were addressed under the following sub headings; innovativeness and performance, risk taking and performance, pro-activeness and performance and organizational climate. The last section addresses the methodology, hypotheses testing and discussion of result, conclusion and recommendations.

2.0 THEORETICAL FOUNDATION AND HYPOTHESES DEVELOPMENT

The study is anchored on the knowledge-based theory. The knowledge-based theory was initially propounded by Penrose in 1959 and later expanded by other scholars' including Werner in 1984 and Barney in 1999 respectively. The approach considers firms as bodies that generate, integrate and disseminate knowledge (Narasimba, 2000; Miller, 2002). The theory is based on the perspective that value creation is not dependent upon physical or financial but as a set of intangible knowledge based on capabilities which can assist organizations attains competitive edge over its rivals (Skyrmeand Arnindon, 1997). Penberton

and Stonehouse, (2000) arguing further that firms that acquire or develop organization knowledge associated with value could be describe as uncommon or idiosyncratic and better positioned in generating and sustaining high returns (Raft and Lord, 2002). Knowledgeable employees seek responsibility and new ways of doing things and this brings about creativity and innovation. Thus, the knowledge-based view is essential for firms innovative capacity which facilitates the discovery and exploitation of opportunities (Kaya & Patton, 2011) However, knowledge is also perceived to aid entrepreneurs in making rational decision (Deelstra&Innanen, 2003) which could assist them in moderating the element of risk in their decision making. Nevertheless, high levels of environmental uncertainty require knowledge that will be predictive and preemptive so that entrepreneur act proactively ahead of its rivals, although Runhaar(2015) argues that entrepreneurs' ability to predict and preempt the environment is not based not only on a deficit or availability of knowledge but also the ability to interpret. It therefore means that knowledge encapsulate the three components of EO used for the study.

Innovativeness and Performance

Wang (2008) describe innovativeness as fostering a spirit of creativity, supporting research, development and experimentation, introducing new products/services as well as processes. Freeman (1982) describes invention as an idea, a sketch or model for a new or better improved device, product, processes or

system while that of innovation in an economic sense, is describe as the first commercial transaction involving the new product, process system or device. Thus, innovation can best be described as the utmost utilization of new ideas which originates from the bedrock of ideas and is in essence characterized by change (Neely &Hii, 1998). Robert and Tucker (2008) argued that innovation is the coming up of ideas and the actualization of such ideas. It is important to note that innovation is the hallmark to which Telecommunications Company can improve it quality of service to customers and gain greater market share.

Several studies suggested that innovative firms create extraordinary performance, gain economic growth and apply creativity in business environment (Kraus, Rigtering, Hughes, &Hosman, 2012; Laukkanen, Nagy, Hirvonen, &Pasanen 2013). McAdam and Keogh (2004) examined the relationship between performance and its familiarity with innovation, results indicated that outlook of firms towards innovation scored high in competitive environment. In a related study, Calantone, Cavusgil, and Zha (2002) explored the relationship between learning orientation, firm innovation and performance in US. Findings show that learning orientation is significant for innovative and performance. On his part, Terziovski (2010) study revealed that innovative practice strategy is a major driver of performance of SMEs while Gellynck, Cardenas, Pieniak Verbeke (2014) study reported a significant effect

between innovativeness outcome and performance. Based on these findings, the following hypothesis is formulated:

H1: Innovativeness has a positive significant effect on performance of Airtel Telecommunications Company.

Risk Taking and performance

Franco and Hase (2013) describe risk taking as a crucial dimension of entrepreneurial orientation. Wiklund and Shepherd (2003) define risk taking as the tendency to assume bold actions such as venturing into unknown and committing a huge portion of resources to the venture for a reward. Kitigin (2017) aver that risk taking can also be perceived as the firm's tendency to engage in high risk projects as well as managerial preferences for bold action as against cautions actions in order to achieve the goals of the organization. Wiklund and Shepherd (2003) defined risk-taking as the ability to take bold actions such as venturing into unknown, a new market or committing a large portion of resources to business for an uncertain reward. Therefore, the entrepreneur embraces the risk component in terms of investment and strategic decision even when it is glaring that the outcome of this actions are uncertain (Das & Josh, 2007). Several studies support the argument that risk taking will lead to a higher level of firms' performance, although there are variations because not all businesses will succeed (McGrath, 2001). Kitigin (2017) carried out a study on the relationship between risk taking and business performance among SMEs in Eldoret town

Kenya. The study established that there is a strong positive correlation between risk taking and business performance of SMEs in Eldoret town. Kisel'akova', Horvathova, Sofrankova, and Soltes (2015) conducted a study on the analysis of risk and their impact on enterprise performance by creating enterprise risk model in U.S.A, the study found out financial risk was significant on performance of enterprise. Walls (2005) carried out a study on corporate risk-taking and performance: A 20 year look at the petroleum industry in US, the study findings revealed that firms in the high risk tolerance category significantly performed better than firms less willing to take financial risk. A study by Mollah, Hassan, Al farooque and Mobarek (2017) explored the governance, risk- taking and performance of Islamic banks in 14 different countries, Findings revealed that the governance structure in Islamic banks allows them to assume higher risk and attain a higher performance because of the complexities and transaction mechanisms. On the basis of this that we propose the following:

H2 Risk taking has a positive effect on performance of Airtel Telecommunications Company

Proactiveness and Performance

Aigboje (2018) posit that proactiveness is the ability to identify events in advance or an act that enhances future prospective and needs rather than responding later when the incident has occurred. Entrepreneurial pro activeness is often regarded as alertness of a company. Alvearez and Barney (2002) aver that entrepreneurial

proactiveness is the ability of the firm to predict where product/ services do not exist or have become unsuspected valuable to customers and where new processes are unknown to others becomes feasible. Proactiveness is the ability to constantly exploit opportunities (Ahuja & Lampert, 2001), therefore in a highly competitive industry such as telecommunication, the ability to pre-empt the activities of rivals can enhance performance. Previous studies found proactive firms achieve their target in premium segments as well as move faster so as to gain competitive advantage and capitalize on a market opportunity for higher returns as well as leadership in performance (Brettel & Rottenberge, 2013; Cardoze & Fornes, 2011; Chen, Li & Evans, 2012). Walter, Auer and Ritter (2006), Zhang and Zhang (2012) believe that no firm can be sustained without being proactive, innovative and be prepared to venture into untested risk. Oni (2012) explored the relevance of entrepreneurial proactiveness on business performance of Nigerian companies' experience and found that enterprise performance was a function of wider entrepreneur proactiveness. However, Jintong, Zhi, and Jerome (2014) findings was contrary to the propose hypothesis, as findings from their study revealed that proactiveness can decrease government and media firm power difference. Wambugy, Gichira, Wanjau and Mungdhu (2015b) carried out a study on the relationship between pro activeness and performance found that proactiveness was significant to the performance of agro processing SMEs in Kenya leading to our

proposition:

H3: Proactiveness has a positive effect on performance of Airtel Telecommunications Company

Indirect Effect: Organizational Climate
Beleasteguigoltia, Patian and Navarrete (2006) define organizational climate as the properties of work place that employees view as characteristics of the organization, as well as the way in which the people perceive and interpret their surroundings. Organizational climate can also be defined as the perception and behavior of employees in an organization. Climate of an organization can also be referred to as organizational concern for excelling which is termed as achievement orientation (Bagheri, Yarjanli, Mowlanpour & Mahdinasub, 2016). Organizational climate is dependent on general factors which include commitment, confidence, sense of belonging and ownership towards organization as well job satisfaction (Arabaci, 2010). Organizational climate can be described as the perception held by organizational members who are exposed to the same organizational structure (Schenider, 1990). Brown and Leigh (1996) suggested that organizational climate that is perceived to be safe and meaningful is one that is connected with higher levels of job, involvement effort and performance. Eisenberger, Huntington, Hutchison and Sowa (1986) assert that as a result of supportive leadership behaviors in an organization, employees feel the need to reciprocate favorable treatment with positive attitudes and behavior. Thus, the present study

relied on the adoption of three measures of climate dimension in organization as stated in Bagheri, Yarjanli, Mowlanpour and Mahdinasub (2016) which include risk orientation, external orientation and achievement orientation.

Risk orientation is the general perception of employees towards risk hence organizations that tend to be risk adverse, employees are not encouraged to venture into high risk, innovation and decision making (Ottih, 2014) and invariably affects the degree of EO (Miller & Friesen, 1982). The potential disruptive features typically associated with the adoption of radical innovation require managers with positive attitude that support risk taking, its adoption as well as change in the organization (Dewar & Dutton, 1986; Grover, 1993). However, external orientation is the perception that organizations will be affected by the external environment (Ezigbo, 2011). Hence, Johne and Snelson (1988) comparison of 17 pairs of successful versus failed product innovation reviewed that companies with a track record of successful innovation had better understanding of the customer's needs as well as making effective use of information they receive from customers. Thus, Covin and Slevin (1991) EO model incorporates the organization and the environment to access a feedback loop and how EO can be improved for optimal organizational performance.

Ottih (2014) asserts that the organization and even societies that applaud creativity will stimulate more participation than

those that are not. The structure of an organization typifies the level of creativity, risk taking assumption and proactiveness; thus, an organic structure that is flexible with lax rules and regulation will promote innovation and risk taking (Kimberly & Evanisko, 1981). Hence the theory of achievement orientation is built around the notion of achievement relative to a standard excellence (Litwin & Stringer, 1986). Hurley and Hault (1998) carried out a study on the relationship between organizational climate dimensions including learning and development, participation and support, coordination and concentration of power in organization communication, conflict and risk tolerance and innovation. Findings revealed that the most essential innovation consequences are seen on participating in decision making and organization learning and growth. Knight (1999) considers the development and improvement of products and services like productive techniques and technology as a significant part of organization and production, innovation and entrepreneurship. Several studies attest to the fact that there is a relationship between management policies and activities such as management structures, component in entrepreneurship model and organizational climate (Wilson, 2005; Nayage & Vuuren, 2005). Caniels and Baaen (2018) conducted a study on how learning oriented and organizational climate, is linked to different proactive behaviors: the role of employee resilience, findings indicated that employee resilience mediates the relationship between learning-oriented organization, climate and proactive work behaviors.

Soonhee (2009) study on organizational climate and innovation revealed that there was a positive relationship between manager's leadership style and employee's creativity and innovation. Neves and Eisenberge (2004) carried out a study on perceived organizational support and risk taking, result indicated that perceived organizational support was positively related to failure and trust among subordinate and supervisors, likewise perceived organizational support was related to subordinate risk taking. Similarly, Davidsson and Wiklund (2001) study findings also revealed that there is a significant relationship between freedom and encouragement as a result of structural factors and organizational procedures. A study carried out by Schneider (1980) in service organizations, findings from the study revealed that climate is essential for business performance. Hansen and Wernerfelt (1989) investigated three different models of firm profitability, their findings for the three-model indicated that organizational model alone explains substantially more profits variance compared to the economic model alone, also the integrated model of firm performance was highly significant. In a related study, Gelade and Ivery (2003) carried out a study on organizational climate and firm performance, result revealed a significant relationship between organizational climate and performance. The relationship between climate and performance of manufacturing companies in UK was carried out by Patterson *et al* (2004). Findings showed that the five aspect of organizational climate were

significantly correlated with subsequent productivity. Based on the following we make the following proposition:

- H4a: Organizational climate mediates the relationship between innovativeness and performance
- H4b: Organizational climate mediates the relationship between risk taking and performance.
- H4c: Organizational climate mediates the relationship between pro-activeness and performance

3.0 METHODOLOGY

The research work adopted a survey research design since the aim is to obtain information which can be analyzed, and patterns extracted. The study population consisted of (137) employees of the various Airtel outlets in Benue and Nasarawa States. A convenience sampling technique was used for the selection of outlets while a consensus sampling technique was used to select employees since the population was not large (Cheng & Lai, 2009). 137 questionnaires were distributed to the staff of the organization studied. However, after exclusion of wrongly filled questionnaires and those with incomplete data, a final number of 124 questionnaires were used for data analysis, with hierarchical regression the data analytic technique.

Table 1: Questionnaire Distribution and Retention

	Distributed	Retrieved	Used
Airtel, Nasarawa	64	61	58
Airtel, Benue	73	70	66
Total	137	131	124

Measures

A five-point likert-type scale was used in the measurement of the variables used in the study unless otherwise stated. The dependent variable was measured using modified measures validated by Spangenberg and Theron (2004) with sample questions covering 'production and efficiency', 'market share', 'future growth' etc. The dimensions of entrepreneurial orientation proxied as innovativeness, risk taking and proactiveness were measured using a modified version of the validated measures by Millers/Covin and Slevin (1989) while for performance was measured using the validated measures developed by Koleoso (2016). Sample questions for innovativeness is 'in general, the managers of my firm favor a strong emphasis on the marketing of tried and true products'; for risk taking sample question is 'in general, the managers of a firm have a strong proclivity for low risk programs'; while for proactiveness, a sample question is 'in dealing with its competitors my firm typically respond to actions which competitors initiate'. Organizational climate was measured using a modified validated measure developed by Sims and Lafollette (1975). The sample questions cover climate dimensions of 'structure', 'risk', 'reward', and 'conflict' among others.

4.0 RESULTS AND DISCUSSION

Preliminary Results

This study was aimed at assessing the mediating effect of organizational climate on the positive effect of entrepreneurial orientation and firm performance. Specifically, the study assessed the positive effect of innovativeness, risk

taking and proactiveness on firm performance on the one hand and the mediating effect of organizational climate on the positive relationship between innovativeness, risk taking and proactiveness on firm performance. A careful assessment of the dataset revealed the absence of missing values, which has made it appropriate for use in this analysis. Cronbach Alpha was calculated as the test of reliability. The result revealed that innovativeness had a coefficient of 0.860; risk taking, 0.855; proactiveness, 0.783; while overall reliability coefficient for entrepreneurial orientation is 0.878. Organizational climate has a Cronbach Alpha of 0.781 while firm performance is 0.886, all values above the recommended threshold of 0.7 (Nunnally, 1978).

The descriptive statistics, correlations and reliabilities for the study variables are presented in Table 2 below. The descriptive statistics revealed that 97 (78%) consisted of male workers while female workers represented about 27 (21.7%). The study further revealed that 34 (27%) were within the range of (18-30) while 72 (58%) were within the range (of 31-50) with only 18(14.5%) of Airtel staff above 50 years. It is important to note the coefficients among the main variables in the study. Firstly, firm performance and risk taking does not correlate significantly ($r = .040$, $p = .329$) while correlating significantly with innovativeness ($r = .841$, $p < .001$), proactiveness ($r = .277$, $p < .01$) and organizational climate ($r = .434$, $p < .001$). Secondly, among the predictors, the significant correlations are reported

between risk taking and organizational climate ($r = .341, p < .001$), innovativeness and proactiveness ($r = .205, p < .01$) and

organizational climate ($r = .407, p < .001$) and lastly proactiveness and organizational climate ($r = .480, p < .001$).

Table 2: Mean, Standard Deviations and Correlation

	Mean	SD	1	2	3	4	5
Firm Performance	2.98	1.403	1.000				
Risk Taking	2.92	1.559	.040	1.000			
Innovativeness	2.90	1.502	.841**	-.007	1.000		
Proactiveness	3.34	1.137	.277*	-.053	.205*	1.000	
Organizational Climate	2.84	1.478	.434**	.341**	.407**	.480*	1.000

** $p < .001$; * $p < .01$

Source:

A hierarchical regression analysis was used to test hypotheses. Considering the possibility of multicollinearity in the regression analysis, the variance inflation factor was calculated using VIF. The VIFs for risk taking, innovativeness, proactiveness and organizational climate were 1.252, 1.235, 1.396 and 1.861 while Tolerance values for risk taking, innovativeness, proactiveness and organizational climate were .799, .810, .716 and .537 respectively all within acceptable threshold indicating that the regression performed in this study do not present a multicollinearity problem.

Main Results

To test our hypotheses, the study adopted the procedures developed by Baron and Kenny (1986). According to the logic of

this procedure, mediation is suggested if the following conditions are met: (a) the independent variable is a significant predictor of both the dependent variable and the mediator, (b) the mediator is a significant predictor of the dependent variable, and (c) the effects of the independent variable on the dependent variable are reduced when the mediating variable is added to the regression equation. Full mediation is indicated if the effect of the independent variable is no longer significant when the mediating variable is added, whereas partial mediation is suggested if the effect of the independent variable is reduced but remains significant. The result of the multiple regression result is presented on Tables 3 and 4.

Table 3: Result of Regression Analysis

	Organizational Climate	Firm Performance	
	Model 1	Model 2	Model 3
Risk taking	.347**	.046	.028
Innovativeness	.315**	.765**	.748**
Proactiveness	.563**	.137*	.107
Organizational Climate			.054
R ²	.463	.722	0.724
Adjusted R ²	.449	.715	0.715
F	34.743**	104.739 3**	78.582**

N = 124; **p < 0.001; *p<.01

Table 4: Result of Regression Analysis – Organizational Climate and Firm Performance

	Firm Performance
	Model 4
Organizational Climate	.412**
R ²	.189
Adjusted R ²	.182
F	28.625**

N = 124; **p < 0.001; *p<.01

Four regressions models were used to test hypotheses one, two, three and four. Model 2 is used to answer hypothesis 1 – 3. The model is significant at F (3, 121) = 104.739, p < 0.001 explaining 72.2% of the variation in firm performance. Specifically, the result indicates that innovativeness ($\beta = 0.765$, $p < .001$) and proactiveness ($\beta = 0.137$, $p < .001$) are significant predictors of firm performance while risk taking fails to contribute to

explaining firm performance ($\beta = 0.046$, $p = .285$). Successive regression equations were used to test for mediation following the recommendation by Baron and Kenny (1986). In Model 1, risk taking, innovativeness and proactiveness significantly predict of organizational climate ($\beta = 0.347$, $p < .001$; $\beta = 0.315$, $p < .001$; $\beta = 0.563$, $p < .001$), satisfying the first condition by Baron and Kenny. As earlier indicated, only risk-taking fails as a

predictor of firm performance whereas, innovativeness and proactiveness all are predictors of firm performance. In addition, as indicated on Table 3, organizational climate has significant positive effect on firm performance ($\beta = 0.412, p < .001$) also satisfying the second condition of the recommendation. In Model 3, where organizational climate is included in the model whereas innovativeness is still significant at $\beta = 0.748, p < .001$, whereas proactiveness and risk taking are not significant predictor at $\beta = 0.107, p = .130$ and $\beta = 0.028, p = .567$. The result indicates that organizational climate fully mediates the relationship between proactiveness and firm performance while mediating partially the relationship between innovation and firm performance (Baron & Kenny, 2006).

Discussion of Findings

The broad objective of the study was to ascertain the effect of entrepreneurial orientation, organizational climate on performance of Airtel Telecommunication in Nigeria. The specific objective of the study was to ascertain the predictive effect of innovativeness, risk taking and proactiveness on the performance. Furthermore, the study assessed the mediating effect of organizational climate on the relationship between entrepreneurial orientation and performance of Airtel Telecommunications Company. The regression result revealed that innovativeness has significant effect on performance of Airtel Telecommunications company in Nigeria, similar findings were supported McAdam &

Keogh (2004) who examined the relationship between performance and its familiarity with innovation, results indicated that outlook of firms towards innovation scored high in competitive environment also Terziovski (2010) study revealed that innovative practice strategy is a major driver of performance of SMEs while Gellynck, Cardenas, Pieniak Verbeke (2014) study reported a significant effect between innovativeness outcome and performance.

Results from the regression also indicated that risk taking was not significant to performance of Airtel Telecommunications Company Nigeria. These finding is inconsistent with that of (Kitigin, 2017: Kisel'akova', Horvathova, Sofrankova, & Soltes, 2015: Walls, 2005) who unanimously in their studies, found a contrary result that risk taking is significant to performance. Similarly, proactiveness was found to be significant to performance of Airtel Telecommunication Company in Nigeria. The study findings is in line with that of Oni (2012) who explored the relevance of entrepreneurial proactiveness on business performance of Nigerian companies' experience and found that enterprise performance was a function of wider entrepreneur proactiveness. In the same vein, Wambugy, Gichira, Wanjau and Mungdhu (2015b) carried out a study on the relationship between pro activeness and performance, study findings indicated that proactiveness was significant to the performance of agro processing SMEs in Kenya. As per Jintong, Zhi, and Jerome (2014) their study finding was not

consistent with that of the current study findings as proactiveness was seen to decrease government and media firm power difference.

Organizational climate was found to partially mediate between innovativeness and performance of Airtel Telecommunication Company in Nigeria. The study finding share close nexus with that of Soonhee (2009) on organizational climate and innovation which revealed that there was a positive relationship between manager's leadership style and employee's creativity and innovation. As per Hurley and Hault (1998) study on the relationship between organizational climate dimensions including learning and development, participation and support, coordination and concentration of power in organization communication, conflict and risk tolerance and innovation, findings revealed that the most essential innovation consequences are seen on participating in decision making and organization learning and growth. Finally organizational climate fully mediated between proactiveness and performance of Airtel Telecommunications Company in Nigeria this findings is similar to that of Caniels and Baaen (2018) on how a learning oriented, organizational climate is linked to different proactive behaviors: the role of employee resilience, findings indicated that employee resilience mediates the relationship between learning oriented organization, climate and proactive work behaviors

5.0 CONCLUSION AND IMPLICATIONS OF THE STUDY

The study was carried out to ascertain the effect of entrepreneurial orientation, organizational climate on performance of Airtel Telecommunications Copmpany in Nigeria. Specific objectives was to (i) determine the effect of innovativeness on performance of Airtel Telecommunication Company; (ii) ascertain the extent to which risk taking affect performance of Airtel Telecommunication Company; (iii) analyze the effect of proactiveness on performance of Airtel Company; (iv) determine the mediating effect of organizational climate innovativeness and performance; (v) determine the mediating effect of organizational climate on risk taking and performance; (vi) analyze the mediating effect of organizational climate on proactiveness and performance. A survey research design was adopted for the study while a convenience and consensus sample techniques were used for the study out of which only 124 respondents completed and returned their questionnaire. Data was presented in tables and analyzed using hierarchical regression analysis. Study findings revealed that innovativeness has significant effect on performance, risk taking has no significant effect on performance, proactiveness has significant effect on performance. Organizational climate partially mediated between innovativeness and performance, however, organizational climate fully mediated between fully mediated between proactiveness and performance of Airtel Telecommunications Company.

The study has both practical and

theoretical implications for the study; as per the practical relevance of the study, findings from the study will assist not just Airtel Telecommunication Company in Nigeria but other relevant organizations to imbibe the culture of training and retraining of its employees so that the company can be up-to-date especially in areas of technological development. The study will enable organizations improve on information and communications technology equipment and other surveillance methods. Since organizational climate mediated the between innovativeness and performance, the management of the company should support and reward organizational members that contribute extra ordinary value to the company. Findings from the study encourages decentralizes of authority and decision making to profit centres of the company so that they can respond swiftly to changing environment. Theoretically, the study established that innovativeness and proactiveness affect performance, although risk taking was

found to have no significance to performance, organizational climate partially mediated between innovativeness and performance while organizational climate fully mediated between proactiveness and performance.

Limitation and Suggestions for Further Studies

The study is limited to the use of only three variables of EO namely; innovativeness, risk taking and proactiveness, further studies could explore more variables of EO. The study was limited by the fact that it made use of a cross sectional survey design; other research design could be adopted in future research. The sample size was small, it is imperative for future studies to accommodate large sample. The study concentrated on the Telecommunication sector in Nigeria, other sectors too should be explored to see if there are variations in results. Lastly future studies should be carried out to find out why risk was not significant.

REFERENCES

- Adeola, A. Adebayo, C & Ekejuba, O. (2016). A review of the contribution of telecommunications to the economic growth of Nigeria, *IJEEE*, 3(2).10-13
- Adi, B. (2015). An evaluation of the Nigerian telecommunication industry competitiveness: Application of Porters' five forces model. *World Journal of Social Sciences*. 5 (3) pp15-36
- Ahuja G. & Lampert, M. (2001). Entrepreneurship in the large corporation: A longitudinal study of how established firms create breakthrough inventions. *Strategic Management Journal*, 22(7), 521-543.
- Aigboje, P.O (2018). Entrepreneurial proactiveness and employee satisfaction of small and medium size enterprises in P.H. Nigeria. *Global Scientific Journal*, 6 (7)466-473
- Alvarez, S.A. & Barney, J.B. (2000). *Resources based theory and entrepreneurial firm strategies entrepreneurial firm strategic entrepreneurship in creating a new mindset*. U.K: Blackwell publisher
- Anderson, B.S, Kreiser, P.M, Kuratko, D.F. (2015) Reconceptualizing entrepreneurial orientation. *Strategic Management Journal* 36, 1579–1596.
- Arabaci B. (2010), Academic and administration personnel's perceptions of organizational climate (Sample of Educational Faculty of Firat University) 4445- 4450.
- Bagheri, R., Yarjanli, M., Mowlanapour, R. & Mahdinasab, N. (2016) Examining the Relationship between organizational Climate and Entrepreneurship with regard to Staff's Locus of Control in Industry Companies in Iran. *International Journal of Humanities and Cultural Studies*, 3(1)677-698
- Basso, O., Fayolle, A. & Bouchard, V. (2009) Entrepreneurial orientation: The making of a concept. *The International Journal of Entrepreneurship and Innovation*, 10(4), 313–321.
- Belausteguigoitia, I., Patlán, J. Navarrete, J. M. M (2007). Organizational climate as antecedent of commitment, effort and entrepreneurial orientation in Mexican family and non-family firms. *Revista del Centro de Investigación. Universidad La Salle*
- Blomberg Business week (2009) Nigeria's; GDP grew at 6.9 % in 2009 on telecom industry. Online available: <http://www.businessweek.com/new/2010-03-15/Nigerian-gdp-grew-6-9-in2009-on-telecom-industry-update> accessed 23/9/10
- Brettel, M. & Rothenberger, J.D. (2013). Examining the link between entrepreneurial orientation and learning process in small and medium sized enterprise. *Journal of Small Business Management*, 51(4)471-490
- Brown, S.P. & Leigh, T. W., (1996). A New Look at Psychological Climate and its Relationship to Job Involvement, Effort, and Performance". *Journal of Applied Psychology*, 81(4). 358-368.
- Calantone, R. Cavusgil, T.S., & Zhao, Y. (2003). Learning orientation for innovative capability and firm's performance. *Industrial Marketing Management*, 31(6), 515-524. Doi: 10.1016/50019-8501(01)00203-6
- Carniels, M.C.J. & Baaten, S.M. (2018). How a learning oriented organizational climate is linked to different proactive behaviors: The role of employee resilience. *Social Indicators Research*, 92(1), 1 - 17. Doi:10.1007/s11205-018-1996-y

- Cardoza, G. & Formes, G. (2011). The internalization of small and medium enterprises for China: The case of Ningxia Hui autonomous region. *Asia Pacific Journal of Management*, 28(4), 737-759
- Chen, Y., Li, P., & Evans, K.R. (2012). Effect of interaction and entrepreneurial orientation on organizational performance: Insight into market driven and market driving. *Industrial Marketing Management*, 41(6). 1019-1034. Doi:10.1016/j.indmarman.2012.01.017
- Cheng, C-M. & Lai, S-H. (2009). A consensus sampling technique for fast and robust model fitting. *Pattern Recognition*, 42(7), 1318-1329.
- Chidozie, F.C., Lawal, P.O & Ajai, O (2015). Deregulation of the Nigerian Telecommunication sector: Interrogating the nexus between imperialism and development. *Academic Journal of International Studies*, 4 (1) , 10.5901/mjss.2015.v4n1p173
- Covin, J.G. & Lumpkin, G.T. (2011) Entrepreneurial orientation theory and research: Reflections on a needed construct. *Entrepreneurship: Theory & Practice*, 35(5), 855–872.
- Covin, J.G. & Miller, D. (2014) International entrepreneurial orientation: Conceptual considerations, research themes, measurement issues, and future research directions. *Entrepreneurship: Theory & Practice* 38(1), 11–44
- Covin, J.G., & Slevin, D.P., (1989). Strategic management of small firms in hostile and benign environments”, *Strategic Management Journal*, 10(1), 75-87.
- Covin, J. G., & Slevin. D. P. (1991). A conceptual model of entrepreneurship as firm behavior. *Entrepreneurship Theory and Practice*, 16(1), 7–25.
- Covin, J.G. & Wales, W.J. (2012). The measurement of entrepreneurial orientation. *Entrepreneurship: Theory & Practice*, 36(4), 677–702.
- Das, S. R., & Josh, M. P. (2007). Process innovativeness in technology services organizations: Roles of Differentiation Strategy, Operational Autonomy, and Risk Propensity, *Journal of Operations Management*, 25(3), 643-660
- Davis, J. H., (2007). *A concept of agribusiness*. Boston: Division of Research, Graduate School of Business Administration, Harvard University.
- Davidsson, P. & Wiklund, J., (2011). Levels of analysis in entrepreneurship research: current research practice and suggestion for the future. *Entrepreneurship: Theory and Practice*, 26(4), 81-99
- Deelstra, Y. & Inanan, S. (2003). Using knowledge for decision making purpose in the contest of large project in the Netherlands. *Environmental Impact Assessment Review*, 23 (5) 519-541
- Devar, R & Dutton, J. (1988). The adoption of radical and incremental innovation: An empirical analysis. *Management Science*, 32, 1422-1433
- Din, Y. (2013). Performance and profit sensitivity to risk: A practical evaluation of the agro-industrial projects developed by Israeli Companies for the CIS and Eastern European Countries. *Agricultural and food Economics*, 1(1), 1-23. Doi:10.1186/2193.7532-1-3.
- Edmond, V.P. & Wiklund, J. (2010) The historic roots of entrepreneurial orientation research. In: Landstrom H and Lohrke F (eds) *Historic*

- Foundations of Entrepreneurship Research*. Northampton, MA: Edward Elgar Publishing, pp.142–160.
- Eisenberger, R., Hungtington, R., Hutchinson, S. & Sowa, D (1986). Perceived Organizational Support. *Journal of Applied Psychology*, 71, 500-507.
- El-Rufai, N. (2016). How we birthed the telecom revolution: Nigerian communication commission magazine.
- Ezigbo, C.A. (2011). *Advance management, Theory and Applications*. Enugu: Immaculate Publications limited
- Falano, T. & Popoola, F. C. (2013). Competitiveness in the Nigerian Telecommunications Industry. *International Journal of Research in Commerce, IT and Management*, 3(7), 9-15
- Franco, M. & Haase, H., (2013). Firm resources and entrepreneurial orientation as determinants for collaborative entrepreneurship, *Management Decision*, 51(3), 680-696
- Freeman, C. (1982). *The economics of industrial innovation*, London: Frances Printer
- Frese, M., Brantjes A, & Rogier, H. (2002). Psychological Success Factors of Small Scale Businesses in Namibia: The roles of strategy process, entrepreneurial orientation and the environment. *Journal of Development Entrepreneurship*, 7(3), 259-282.
- Gellynick, X., Cardenas, J. Pieniak, Z. & Verbeke, W. (2014). Association between innovative entrepreneurial orientation, absorptive capacity and farm business performance. *Agric Business*, 31(1). 91-106. Doi.org/10.1002/org.21394
- Gelade, G. A. & Ivery, M. (2003). The impact of human resource management and work climate on organizational performance. *Personnel Psychology*, 56, 383-404
- Giudici, A., & Reinmoeller, P. (2013). Sensing together: an exploration of the support of network intermediaries to firms and entrepreneurs search for new opportunities, Unpublished thesis, Granfield University
- Grover, V. & Gosler, M.D. (1993). The initiation, adoption and implementation of telecommunication technologies in US organizations. *Management Information System*, 10(1), 141-164. Doi:10.1080/07421222199311517994
- Hansen, G.S. & Wernerfelt, B, (1989). Determinant of firm performance: The relative importance of economic and organizational factors, *Strategic Management Journal*, 10, 399-411
- Hurley, R.F. & Hult, G.T. (1998). Innovation, Market orientation and organizational learning: an integration and empirical examination. *Journal of Marketing*, 62(7), 42-54
- Jintong, T., Zhi, T., & Jerome, A.K. (2014). Proactiveness, stakeholders firm power difference and product safety and quality of Chinese SMEs. *Journal of Management Science*. 3(5), 1129-1157. <https://doi.org/10.1111/etap.12029>
- Johne, F.A. & Snelson, P.A (1988). Success factors in product innovation: A selective review of the literature. *Journal of Product Innovation management*, 5(2), 144-128
- Kaya, N. & Patton, J. (2011). The effect of knowledge of based resources, market orientation and learning orientation on innovation performance: an empirical study of Turkish firms. *Journal of International Development*, 23, 204-

- Kimberly, J. & Evanisko, M. (1981). Organizational innovation: The influence of individual organizational and contextual factors on hospital adoption of technological and administrative innovation. *The Academy of Management Journal*, 24(4), 689-713. Doi:10.2307/256176
- Kiselakova, D. Horvattova, J. Sofrankova, B. & Soites, M. (2015). Analysis of risk and their impact on enterprise performance by creating enterprise risk model. *Polish Journal of Management Studies*, 11(2), 50-61.
- Kitigin, B. (2017). Relationship between risk taking and business performance among small and medium enterprises in Eldoret Town Kenya, *International Journal of Business and Management Review*, 5(7), 52-59
- Knight, G.A., (1997). Cross-cultural reliability and validity of a scale to measure firm entrepreneurial orientation, *Journal of Business Venturing*, 12(3), 213-225
- Koleoso, H. A. (2016). Performance Measurement Scale for Facilities Management Services in Lagos-Nigeria. *Journal of Facilities Management*, 15(2), 128-152
- Kraus, S., Rigtering, J.P.C., Hughes, M. & Hosman, V. (2012) Entrepreneurial orientation and business performance of SMEs: a qualitative study. *Netherlands' Review of Management Science*, 14, 67-87
- Laukkanen, T., Nagy, G., Hirvonen, S., & Pasanen M. (2013). The effect of strategic orientations on business performance in SMEs. *International Marketing Review*, 30(6) 510-535
- Litwin, G. H. & Stringer Robert, A (1968). *Motivation and organizational climate*. Harvard University.
- Low M.B., & MacMillan, I.C (1989). Entrepreneurship: Past Research and Future Challenges", *Journal of Management*, 1(2), 139-161.
- Lumpkin G. T., & Dess G. G. (1996). Clarifying the Entrepreneurial Orientation Construct and Linking It to Performance. *The Academy of Management Review*, 21, 135-172.
- Luthans, F. (2005). *Organizational Behavior* (10th ed). New York, Boston, MA: McGraw-Hill
- Miller, D. (1982). The correlates of entrepreneurship in three types of firms. *Management Science*, 29(7), 770-791.
- McAdam, R. & Keogh, K (2004). Transitioning towards creativity and innovation measurement in SMEs. *Creativity and Innovation Management*, 13(2), 126-141
- McGrath, R.G. (2001). Exploratory learning, innovative capacity, and managerial oversight, *Academy of Management Journal*, 44(1), 118-131.
- Miller, D., & Friesen, P. H. (1982). Innovation in conservative and entrepreneurial firms: Two Models of strategic momentum. *Strategic Management Journal*, 3, 1-25.
- Mollah, S. Hassan, M.K., & Al Farooque, O. (2017). The governance, risk taking and performance of Islamic banks. *Journal of Financial Services Research*, 51(2), 195-219.
- Neves, P. & Eisenberger, R. (2004). Perceived organizational support and risk taking. *Journal of Managerial Psychology*, 29(2). 187-205. Doi: 10.1108/JMP-07-2011-0021
- Nigeria Communication Commission (2014) Percentage contribution of telecoms to GDP 2001-2013. Retrieved from the 14th 2012 available at www.ncc.gov.ng/index.php?option=article&id=tem170

- Neely, A. & Hii, J. (1998). Innovation and Business Performance: A literature review. The Judge Institute of Management Studies, University of Cambridge.
- Nunnally, J.C. (1978). *Psychometric theory*. (2nd Ed.) New York: McGraw- Hill
- Olajide, O.T (2014). Change management and its effect on organizational performance of Nigerian telecom industries: Empirical insight from Airtel Nigeria. *International Journal Social Science and Education.*, 1 (11), 170-179.
- Olumide, H. A (2011). Telecommunications Reform and Effects of Competition on Availability, Quality and Cost of Service in Nigeria. *Public Policy and Administration Research*, 1(3), 8-19
- Oni, E.O. (2012) Relevance of entrepreneurial pro activeness on business performance: Nigerian companies experience. *Arabian journal of business and management review*, 1(6), 92-108
- Ottih, L. (2014). *Entrepreneurship, personality, process and enterprise*. Port Harcourt: Pearl Publisher.
- Patterson, M.G. Warr, P.B., & West, M.A., (2004). Organizational climate and company performance: The role of employee affect and employee level', *Journal of Occupational and Organizational Psychology*, 77, 193-216
- Robert, B. & Turker, E. (2008). *Driving growth through innovation: How leading firms transform their future* (2nd ed) U.S.: Berrette-Koehler Publishers
- Runhaar, H.A.C., (2015). Getting Ea research out of the comfort Zone. Critical Reflections from the Netherlands. *J. Environmental Assessment management*, 17, 1550011
- Schumpeter, J.A., (1934) *Capitalism socialism and democracy*. New York: Haper and brothers
- Schneider, B. (1990). The climate for service: An application of the climate construct In Scheider B (Ed), *organizational climate and culture*, 383-412, San Francisco: Jossey-Bass
- Schneider, B. (1980). The service organization: climate is crucial. *Organizational Dynamism*, 9(3), 52-56
- Skyrme, D. & Arinindon, D. (1997). *Creating the knowledge-based business*. London: Business Intelligence
- Snipes R.L. Oswald S.L. Lotour M. and Armenakis A.A., (2004) The Effects of Specific Job Satisfaction Facets on Customer Perception of Service Quality: An Employee Level Analysis, *Journal of Business Research*, In Press, Corrected Proof, Available Online
- Soonhee, K. (2009). Managerial leadership, the climate for creativity for creativity and innovation, and a culture of innovation and performance- driven in local Government. Paper Prepared for the PMRA conference.
- Spangenberg, H. H., & Theron, C. (2004). Development of a questionnaire for assessing work unit performance. *SA Journal of Industrial Psychology*, 30(1), 19-28.
- Terziovski, M. (2010). Innovation practice and its performance and its performance implications in small and medium enterprises SMEs in the manufacturing sector: A resource based view. *Strategic Management Journal*, 31(8), 892-902
- Ucbasaran D., Westhead P. and Wright M., (2001). The Focus of Entrepreneurial Research: Contextual and Process Issues. *Entrepreneurship Theory and Practice*, 25(4), 57-80.

- Van De Van, H. (1993). The development of an infrastructure for entrepreneurship. *Journal of Business Venturing*, 8(3), 211-230. Doi.org/10.1016/0883-9026(93)90028-4
- Walter, A., Auer, M. & Ritter, T. (2005) the impact of network capabilities and entrepreneurial orientation on university spin-off performance. *Journal of Business Venturing*, 21(4), 541-567
- Wambugu, A., Gichira, R., & Wanjau, K. (2001). The relationship between proactiveness and performance of Small and Medium Agro process enterprises in Kenya. *International Journal of Economics, Commerce and Management*, 3(12), 58-71.
- Wang, C.L. (2008) Entrepreneurial orientation, learning organization and firms' performance. *Entrepreneurship Theory and Practice*. doi:10.1111/j.15146520.2008.00246
- Walls, M.R. (2005). Corporate risk taking and performance: A 20 year look at the petroleum industry. *Journal of Petroleum Sciences and Engineering*, 48, 3-5
- Wiklund, J. (1999). The sustainability of the entrepreneurial orientation – Performance relationship. *Entrepreneurship: Theory & Practice*, 24(1), 37-48.
- Wiklund, J., & Shepherd, D. (2005). Entrepreneurial orientation and small business Performance: A configurationally approach, *Journal of Business Venturing*, 20(1), 71-91
- Wilson, C.L. (2005). Principal leadership school climate and the distribution of leadership within the school community. Dissertation Abstract EJD. University of Montana.

7

THE RELATIONSHIP BETWEEN SELF-DETERMINATION AND FINANCIAL WELL-BEING OF RETIREES IN NORTH CENTRAL-NIGERIA

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ABSTRACT

This study examined the relationship between components of self-determination and financial well-being of retirees in North-central Nigeria. A cross-sectional survey approach was employed to test the association between self-determination and financial well-being. A structured questionnaire was administered to a sample of 224 retirees were randomly selected from members of Nigeria Pensioners Association for the purpose of the study. The data were analyzed using regression analysis with the aid of structural equation model specifically using SPSS. The result indicated that there is a positive and significant relationship between self-determination and financial well-being of retirees. This underscores the significance of self-determination in enhancing retirees' chances to attain financial well-being in their older age. It was therefore suggested that, programs aimed at boosting the morale of would be retirees to belief in themselves be instituted by all stakeholders (government and other employers of labour) as well as retiree's unions since such will help them to be financially autonomous when their retirement benefits is being delayed. Thus, the study contributes to the extant literature on self- determination and provides evidence on the effect of self- determination on the financial well-being of retirees in a developing country.

Key words: Retirees, financial well-being, self-determination, North-central Nigeria, Measurement model.

1.0 INTRODUCTION

The world over, every day thousands of financial professionals, including counselors, educators, coaches, planners and others, help individuals traverse financial challenges and opportunities through a different array of approaches and programs with the ultimate goal of improving the financial well-being of the people. Financial well-being, is described as a state of being wherein a person can fully meet the current and ongoing financial obligation, feel secure in their financial future, and is able to make choices that allow enjoyment in life (OECD, 2015). This is not the case with many retirees in Nigeria as their pension benefits are not sufficient to cater for the immediate needs particularly for retired civil servant/retirees (Social Security and National Investment Trust, 2015). Additionally, retirees in developing countries like Nigeria are regarded as among the poorest in the world, with many of them living on less than a dollar per day and 80% with no regular income (Binuomoyo, 2010).

The pathetic situation in is that retirees are the physical and mental and financial condition of the retirees are getting worrisome by the day and has limited their ability to work and earn good income at retirement (Abdulazeez, 2015, Shultz & Wang, 2007). This is not unconnected with the cumbersome nature of procedure used in paying pension benefits as it is often very tedious and takes months and years to be processed before retiree could access (Garba&Mamman, 2014). This add to the stress and suffering of retirees who solely depend on government pension to meet

their needs at retirement, with most of them dying before accessing their benefit.

In view of this, successive governments in Nigeria over the years made effort to address this re-occurring issues. Such efforts include the establishment of the National Provident Fund (NPF) 1961, the Pension fund of 1979, the Armed Forces Pension scheme 1979, the Police and Other Government Agencies Pension fund of 1987, the Local Government Pension scheme of 1987 and the National Social Insurance Trust Fund scheme of 1993 as noted by Balogun(2006). This schemes did not achieve their desired goals (Binuomoyo, 2010) which led to introduction of the contributory pension scheme in 2004. Even with the introduction of the contributory pension scheme, there are indications that retirees are even worst off as some of them still do not access their retirement benefits on time thereby go through a lot of financial hardly hardship at retirement.

The purpose of this study therefore, this study is to test whether cognitive attributes such as self-determination can be an alternative to government funding in improving retirees' financial well-being. Self-determination is a psychological construct that refers to individual caused action based on their own free will (Wehmeyer, Shogren, Little & Lopez, 2017). Studies in entrepreneurship have shown that Self-determination is one of the attributes of successful entrepreneurs. It has also been indicated that self-determination is one of the key components that helps successful businesses to overcome dynamic business environment.

However, there appears to be paucity of literature examining whether self-determination can lead to successful financial transition at retirement. This study is set to fill this knowledge gap by examining whether self-determination and financial well-being are positively and significantly related especially among retired civil servants.

2.0 LITERATURE REVIEW

The concept of financial well-being

Financial well-being has become a central worry among financial researchers in recent decades, with the term financial well-being developed and employed in financial studies. Prior to the mid-1990s, several researchers make an effort to explain, predict, or define related constructs such as financial well-being, financial satisfaction, and economic well-being. However, these positions are used interchangeably with each other. Many researchers have required developing a conceptual model for the determinants of financial well-being (Joo & Garman, 1998). Joo (1998) showed that to determine factors to predict financial well-being is complicated in nature, which comprised objective and subjective statuses of the financial situation, behavioral assessment of personal finance, and satisfaction with a personal financial situation that cannot be measured through a single measure.

Financial well-being is defined as “a state of being financially healthy, happy, and free from worry” and is typically based on a subjective appraisal of one's financial situation (Joo, 2008). Financial well-being has often been measured by overall satisfaction with one's financial situation

(Van Praag, Frijters & Ferreri- Carbonel, 2003). Malone, Stewart, Wilson, and Korsching (2010) posited four domains of financial well-being: buying behaviors, the perception of current finances, the perception of the financial future, and attitudes toward long-term care insurance. Overall satisfaction with one's financial situation is often used as a measure of financial wellbeing (Joo, 2008). Few examinations of the determinants of financial well-being have incorporated objective, subjective, and behavioral measures into a single empirical test of individual financial satisfaction (Joo & Grable, 2004).

However, for the purpose of this study financial well-being is described as a state of being wherein a person can fully meet the current and ongoing obligation, can feel secure in their financial future and is able to make choices that allow enjoyment in life (OECD, 2015). It comprises four elements: feeling in control of your finances, having the capacity to absorb financial shock, being on track to achieve financial goals, and having the flexibility to make choices that allow life to be enjoyed. Individuals with high levels of financial well-being have the financial freedom to make choices that allow them to enjoy life. This gives an individual the opportunity to enjoy life and spend money on his/her wants instead of being restricted to their needs only (CFPB, 2015).

The concept of self-determination

Self-determination is a concept reflecting the belief that all individuals have the right to direct their own lives. Public servants

who have self-determination skills have a stronger chance of being successful in making a successful financial transition to retirement (Wehmeyer & Schwartz, 1997). Self-determination “encompasses concepts such as free will, civil and human rights, freedom of choice, independence, personal agency, self-direction, and individual responsibility” (National Research & Training Center, 2002). It is a construct from Self-determination theory (Ryan & Deci, 2000; Deci & Ryan, 2000) based on the assumption that people have inborn tendencies to grow and develop psychologically, to strive to master challenges in the environment and to integrate the experience into self-concept. This theory holds that these human tendencies are fully expressed only within a supportive social context. That is, self-determination is not achieved simply because an individual has certain requisite knowledge and skills; it is also important that key people and institutions in the person's life provide a context conducive to the self-determination. Self-determination “refers to the attitudes and abilities required to act as the primary causal agent in one's life and to make choices regarding one's actions free from undue external influence or interference” (Wehmeyer, 1992). A person's actions are self-determined if the person acts autonomously, regulates his or her own behavior, initiates and responds to events in a manner indicating psychological empowerment, and behaves in a manner that is self-realizing. That is, the person acts in ways that make positive use of knowledge and understand about his or her own characteristics, strengths, and

limitations (Wehmeyer, Kelchner, & Richards, 1996). A self-determined person is one who sets goals, makes decisions, sees options, solves problems, speaks up for himself or herself, understands what supports are needed for success, and knows how to evaluate outcomes.

Prior scholars have indicated that self-determination explains variation in many areas of human endeavors especially in entrepreneurship and education. For example, a study the relationship between entrepreneurial creativity and self-determination by Amabile (1997) indicate that components of self-determination such as autonomy can explain variation in creativity among entrepreneurs. In another by Deci, Vallenrand, Pelletier and Ryan (2012) on self-determination and quality learning indicate that self-determination enhances personal growth which is associated with quality learning and better educational outcome for the individuals. Similarly, Ntoumanis (2010) examined self-determination and physical education. Using a sample of 424 British students, the finding suggests that perceived competence and intrinsic motivation can lead to compulsory physical education and improved healthy living among the students.

Similarly, in examining relationship between autonomy and retirement, Floyd, F. J., Haynes, S. N., Doll, E. R., Winemiller, D., Lemsky, C., Burgy, T. M., et al. (1992). and Fouquereau, E., Fernandez, A., Fonseca, A. M., Paul, M. C., & Huotinen, V. F (1999, 2005) found that regained freedom and control

associated with the pursuit of activities and interests is related to retirement satisfaction. Given that retirement can be an opportunity to behave from choice and pleasure and to engage in desired leisure and activities for the purpose of personal growth, it is likely that it provides a support for acting in a self-determined way favorable for retirement satisfaction. As a result, individuals are likely to present a high satisfaction with their life in retirement because it allows their needs and desires to be satisfied.

Accordingly, Self-determination is also considered a significant quality of life predictor, especially concerning personal development and personal fulfillment (Lachapelle et al. 2005; McDougall, Evans, and Baldwin, 2010). Perhaps, this shows that self-determination is a feature required by individuals to be focus regarding plans for personal growth in terms financial well-being at retirement. Consequently, according to Palmer, Wehmeyer, & Shogren (2017) asserts that the development of self-determination requires the presence of some skills, referred to as component elements of self-determination. These skills include, but are not limited to, identifying and expressing preferences, choice-making, financial decision-making, financial goal setting, problem-solving, financial planning, self-management, self-advocacy, self-awareness, and self-knowledge. This suggests that as a self-determined person(s) who makes sound financial decisions, set goals for the future in terms meeting its basic needs is likely to enjoy financial well-being at retirement.

In summary, the general purpose of the present exploratory study was to highlight the psychological process through which post-retirement behaviors could be positively related to satisfaction with life in retirement among a selected sample of active retired individuals. A motivational analysis of the retirement transition using the self-determination framework is proposed to explain how and why retirees' motivational orientation could determine their satisfaction with retirement. The present study considers that the motivational forces underlying engagement in post-retirement behavior are important resources that allow retirees to fulfil their centrally valued psychological needs for autonomy, pleasure and satisfaction. This study postulates that, if motivational variables are important for retirement satisfaction, this relationship must persist over and above the influence of sociodemographic factors, time since retirement, retirement planning and control, anticipated satisfaction with retirement, and subjective health. In line with the view of retirement as offering a chance of a new freedom of choice and of pursuing new interests and sources of pleasure freely (Floyd et al., 1992; Fouquereau et al., 1999; Nuttman-Schwartz, 2004).

This means that the more an individual with a certain degree of self-autonomy, such as retirees who are no longer under the control of an organization, they are likely to be more creative and thereby more business minded. However, there is dearth of literature examining whether psychological constructs such as self-

determination can enhance financial well-being of individuals such as retirees. This study examined the link between the two variables using the theoretical lenses of Self-determination theory (Deci & Ryan, 1991).

Theoretical review and hypothesis development

The anchor theory for this study is Self-determination theory by Deci and Ryan (2006). Self-determination theory (SDT) is a theory of motivation that emphasizes on the social and intrapersonal processes which stimulates or weakens peoples' sense of agency with respect to their behavior. It identifies autonomy, relatedness and opportunity competence as key components of self-determination. According to the theory, when self-determined, people experience a sense of freedom to do what is interesting, personally important, and psychologically vitalizing they are likely to succeed in their chosen carrier (Deci & Ryan, 2006). The theory (SDT) further suggests that the social environment influences inherent inspiration through its impact on need satisfaction or perceptions of competence, autonomy and relatedness of individuals (Grouzet et al., 2004). These needs are seen as general necessities for individuals and studies advocate that they are among the most salient needs and those most closely associated with event-based affect (Sheldon et al., 2001). Besides, the focus of SDT is not individual differences in the strength of these needs, but the degree to which they are satisfied. Among these needs, the need for autonomy is deemed as being more essential than the need for

competence and relatedness. According to Gagne' and Deci (2005, p. 337)

Accordingly, SDT postulates that when people experience satisfaction of the needs for relatedness and competence with respect to behavior, they will tend to internalize its value and regulation, but the degree of satisfaction of the need for autonomy is what differentiates whether identification or combination, rather than just introjection, will occur. Thus, autonomy is deemed necessary for value and regulation to be internalized in order for the subsequent enactment of the behavior to be experienced as autonomous. Accordingly, while intrinsically motivated behavior is prototypically autonomous, SDT also posits that extrinsic motivation can vary in the degree to which it is autonomous versus controlled (Gagne' and Deci, 2005). Also, in order to "interpret" SDT into individual life, we examined potential sources of need satisfaction by investigating retiree's autonomy and financial well-being.

Therefore, autonomous behavior also has been shown to be associated with a positive outcome in such as performance and well-being, and personal goal attainment (Deci & Ryan, 1991). The self-determination theory argues that the most positive consequences are derived from the most self-determined types of motivation, such as intrinsic motivation for knowledge, accomplishment and experiencing stimulation. On the other hand, the most negative consequences are usually produced by the least self-determined forms of motivation, i.e., external

regulation (where behavior is guided by reward attainment or punishment avoidance) and a motivation (i.e., absence of motivation).Based on empirical evidence above and theoretical prescriptions of Self-determination Theory (SDT) we hypothesize thus:

H1: Self-determination significantly affects the financial well-being of retirees.

3.0 METHODOLOGY AND DATA APPROACH

Design and data

For this study, quantitative data was collected at a specific point in time to answer the hypothesis set under this study. Cross-sectional research design combined with both descriptive and analytical approaches were adopted in this study.

Population and sample

The population for this study included retirees selected from the North-central part of Nigeria. Overall a total population of 309,787 retirees corresponding to a total sample of 250 was used in this study. This

sample size was arrived at using formulae derived by Yamane (1973). Therefore, a total sample of 250 retirees was randomly selected for this study. This method was appropriately used in order to give all the retirees equal chances to participate in the study. Procedural, the respondents were randomly selected based on names of the retirees initialed on a piece of paper that were randomly picked till a total sample of 250 was achieved in this study. Consequently, a total response rate of 89.6 percent was achieved in this study.

Response rate

The study sample used for the study was 250 out of which 224 responses were received from face to face administered the questionnaire to the respondents. The high response rate of (89.6%) was recorded because of personal approach and research assistants employed in collecting the data. This approach was chosen to enable face to face interaction between the researcher and respondents to improve the quality of response. Table 3 below is the summary of the study response rate.

Table 1: Response rate

	No. of respondents	Percentage
Questionnaires Issued	250	100%
Responses Received	236	94.4%
Responses Discarded	12	4.8%
Responses Used	224	89.6%

Source: Primary data, 2018

Reliability and validity

Cronbach's alpha coefficient was used to test for internal consistency of the items used to measure the different constructs

used in this study. Nunnally and Bernstein (1978) recommend that the alpha coefficient should be above 0.7 for the items to be reliable. Thus, the reliability test results indicated that all the constructs

used to measure the variables in this study were above 0.7 as recommended by Nunnally and Bernstein (1978). For self-determination, financial attitude and financial well-being, respectively. Additionally, construct validity was

established by running the exploratory factor analysis. The results in table 2 showed that all the items meet up the minimum threshold for establishing reliability. Meaning that further analysis can be carried out on the data.

Table 2: Self- determination Cronbach’s Alpha

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Cronbach's Alpha if Item Deleted
LINT(A1)	91.7121	375.117	.797	.956
LINT(A2)	91.6763	376.652	.784	.956
LINT(A3)	92.5223	388.908	.570	.958
LINT(A4)	91.4085	370.208	.822	.956
LINT(A5)	91.8080	376.409	.785	.956
LINT(A6)	91.2388	371.646	.811	.956
LINT(A7)	91.8594	380.315	.748	.957
LINT(A8)	91.7969	384.294	.655	.958
LINT(A9)	91.9085	381.237	.682	.957
LINT(C2)	91.4710	384.597	.710	.957
LINT(C3)	91.7746	391.266	.596	.958
LINT(C4)	91.7879	394.407	.542	.959
LINT(C5)	91.6763	377.925	.734	.957
LINT(C6)	91.5491	382.377	.726	.957
LINT(C7)	92.3415	392.012	.539	.959
LINT(C8)	91.6138	389.248	.630	.958
LINT(C9)	91.2165	376.575	.780	.956
LINT(C10)	90.9754	375.554	.809	.956
LINT(R1)	91.8013	386.887	.591	.958
LINT(R2)	91.4799	384.777	.693	.957
LINT(R4)	91.6674	393.381	.542	.959
LINT(R5)	91.1987	384.228	.631	.958
LINT(R6)	91.2254	383.939	.678	.957
LINT(R7)	91.8192	390.912	.573	.958

Source: EFA results using SPSS version 23.

VALIDITY OF THE INSTRUMENT

In order to test whether the instrument measured the constructs of interest, we used the Communalities table as suggested by Field (2009). validity of the instrument was dissected into convergent and discriminant validity. While convergent validity measures how each item measuring a theoretical construct of interest indeed converge to measure such construct, discriminant validity measures whether items measuring different

constructs are indeed seen to be measuring different construct. Scholars suggest factor loading of .5 and above is an indication of convergent validity (Wong, 2013). As illustrated in the communalities table 3 items were deleted A1; A4; A6 from Autonomy, R2; R5 and R6 from relatedness while 23 items out of the original 29 items were loaded above the recommended 0.5 loading. As such only items with loadings of .5 and above were used for the final analysis as indicated in table 3.

Table 3: Communalities for Self-determination

	Initial	Extraction
LINT(A1)	1.000	.707
LINT(A2)	1.000	.671
LINT(A4)	1.000	.747
LINT(A5)	1.000	.668
LINT(A6)	1.000	.802
LINT(A7)	1.000	.639
LINT(A8)	1.000	.551
LINT(A9)	1.000	.577
LINT(C2)	1.000	.611
LINT(C3)	1.000	.704
LINT(C4)	1.000	.657
LINT(C5)	1.000	.670
LINT(C6)	1.000	.647
LINT(C7)	1.000	.633
LINT(C9)	1.000	.687
LINT(C1)	1.000	.729
LINT(R1)	1.000	.560
LINT(R2)	1.000	.604
LINT(R3)	1.000	.529
LINT(R4)	1.000	.601
LINT(R5)	1.000	.739
LINT(R6)	1.000	.683

LINT(R7)	1.000	.543
LINT(R8)	1.000	.672
LINT(R9)	1.000	.703
LINT(R10)	1.000	.671

Extraction Method: Principal Component Analysis.

DISCRIMINANT VALIDITY

In testing discriminant validity, the focus is on the rotated component matrix. From table 5 it can be seen that items of different

constructs indeed seen to be measuring different constructs. This is a confirmation of discriminant validity.

Table 5: Rotated Component Matrix for Self-determination

	Opportunity Competence	Autonomy	Relatedness
C6_1	.829		
C5_1	.819		
C9_1	.795		
C10_1	.785		
C2_1	.721		
C8_1	.642		
C7_1	.549		
C4_1	.545		
C1_1	.541		
C3_1	.530		
A2_1		.693	
A3_1		.779	
A5_1		.651	
A7_1		.725	
A8_1		.766	
A9_1		.759	
R1_1			.560
R9_1			.852
R8_1			.832

R10_1			.738
R3_1			.732
R4_1			.622
R7_1			.579
Eigen Value	10.034	3.084	2.647
% of Variance	43.625	13.403	11.508
Cumulative Variance Explained	43.625	57.028	68.536

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

5.0 SUMMARY OF FINDINGS, DISCUSSION AND CONCLUSION

In order to test the hypothesized path, we used regression analysis as stated earlier. The result indicate that components of self-

determination explain 52% (R²=.520) of financial well-being of retirees in North central Nigeria and is significant at 95% level of confidence. The result is presented in table 6.

Table 6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.721 ^a	.520	.513	.84741

a. Predictors: (Constant), Relatedness2, Autonomy3, Opportunity_competence2

The coefficient also show that the relationship is positive and significant ($\beta=0.46$, $t=2.67$, $p<0.05$). Thus the hypothesis was supported, meaning a 1% change in self-determination can help to improve one's financial well-being by 46%. This may be so because people with self-determination (autonomy, relatedness and opportunity competence) are able to

take independent risky decisions that may result to higher financial returns.

The finding is consistent with Amabile (1997) who documented that self-determination is positively related to entrepreneurial creativity which in turns results into high competitive advantage thereby increase firm's growth through improve financial results. It is also

consistent with Deci, Vallenrand, Pelletier and Ryan (2012) that self-determination improves individual's outcome such as learning outcomes. The result is also supported by Ntoumanis (2010) who found that self-determination is significant in explaining motivation in physical education that leads to success in health and other areas of human endeavor. Theoretically, the finding lends support to the theory of self-determination that autonomy and opportunity competence act to guarantee success in many areas of life including financial well-being.

We therefore recommend that various stakeholders such as government agencies, labour union and the academia should take

practical actions aimed at boosting the self-determination of retirees as well as civil servants to help them take risky decisions that will help them fit into the world of business if they are to reduce over dependent on government retirement benefits.

Limitation of the study.

The main short-coming of this study is that we used a cross-sectional design which may not capture changes in social phenomena over time. Despite this, the study has contributed to knowledge by providing empirical evidence of the link between self-determination and financial well-being especially among retirees

REFERENCES

- Abdulazeez, N. (2015). Pension scheme in Nigeria, problems and prospects. *Arabian Journal of Business and Management Review*. Vol. 5, Issue 2. ISSN:2223-5833 AJBMR.
- Amabile, T.M. (1997). Entrepreneurial creativity through motivation synergy. *Journal of Creative behavior* 12(4)
- Balogun, A. (2006). Understanding the New Pension Reform Act (RRA, 2004) *CBN Bullion* Vol. No 30, No. 2
- Bauer, J. and Mulder, R.H. (2006). "Upward feedback and its contribution to employees' feeling of self-determination", *Journal of Workplace Learning*, Vol. 18 Nos 7/8, pp. 508-521.
- Blais, M. R., Sabourin, S., Boucher, C., & Vallerand, R. J. (1990). A motivational model of couple happiness. *Journal of Personality and Social Psychology*, 59, 1021-1031.
- Binuomoyo, O.K. (2010). The Nigerian pension system: Reform and expectations. *Pensions: An International Journal* 15, 3–10. doi:10.1057/pm.2009.30
- Bremer, C.D., Kachgal, M. and Schoeller, K. (2003). Research to practice brief: Improving secondary education and transition service through research. Vol.2, issue 1
- Brock, D.M. (2003). "Autonomy of individuals and organizations: towards a strategy research, *Personality and Social Psychology Bulletin*, Vol. 22 No. 12, pp. 1270-1279.
- Carpenter, M. A., Li, M. and Jiang, H. (2012). Social Network Research in Organizational Contexts. A Systematic Review of Methodological Issues and Choices. *Journal of Management*, 38(4), 1328-1361.
- Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11, 227–268.
- Deci, E. L. & Ryan, R. M. (2006). Self-determination theory: An approach to human motivation and personality. Retrieved January 12, 2006. Available from <http://www.psych.rochester.edu/SDT/>.
- Deci, E.L. Valenrand, L.E. Pelletier L.G and yan. (2012). Motivation and Education: self-determination perspective. *Journal of educational psychology* vol ,26 3(4)
- Field A. P. (2005). *Discovering statistics using SPSS*. 2nd edition. London: Sage.
- Field, A. (2009). *Discovering Statistics Using SPSS* third edition. SAGE publications
- Floyd, F. J., Haynes, S. N., Doll, E. R., Winemiller, D., Lemsky, C., Burgy, T. M., et al. (1992). Assessing retirement satisfaction and perceptions of retirement experiences. *Psychology and Aging*, 7, 609-621.
- Fouquereau, E., Fernandez, A., Fonseca, A. M., Paul, M. C., & Huotinen, V. (2005). Perceptions of and satisfaction with retirement: A comparison of six European Union countries. *Psychology and Aging*, 3, 524-528.
- Fouquereau, E., Fernandez, A., & Mullet, E. (1999). The Retirement Satisfaction Inventory: Factor structure in a French sample. *European Journal of Psychological Assessment*, 15, 49-56.
- Fornell, C., & Larcker, D. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50
- Gagné, M. and Deci, E.L. (2005). "Self-determination theory and work motivation", *Journal of Finance*, 29 (4), 246-267
- Grouzet, F.M.E., Vallerand, R.J., Thill, E.E. and Provencher, P.J. (2004), "From environmental factors to outcomes: a test of integrated motivational sequence", *Motivation and Emotion*, Vol. 28 No. 4, pp. 331-46
- Hair, J. F., Black, W. C., Balin, B. J. and Anderson, R. E. (2010). *Multivariate data analysis: Maxwell Macmillan International Editions*.

- Hallen, B. L. (2008). The causes and consequences of the initial network positions of new organisations: from whom do entrepreneurs receive investments? <http://doi.org/10.2189/asqu.53.4.685>.
- Henseler, J., Ringle, C.M., & Sinkovics, R.R., (2009). The use of partial least squares path modelling in international marketing. In *New challenges to international marketing* (pp. 277-319). Emerald Group Publishing Limited
- Idowu, K.O. and Olanike, K.F. (2010). Pensions and Pension Reform in Nigeria. *Pensions* (2010) 15, 11-24: doi.1057
- Joo, S. (2008). Personal financial wellness. In J.J. Xiao (Ed.), *Handbook of Consumer*
- Joo, S. and Garman, T. E. (1998). Workers Want More than Retirement Education at Their Workplace: A Report of Research Finding. *Personal Finances and Workers Productivity*, 2(2), 156-161.
- Joo, S.-H. and Grable, J.E. (2001). "Factors associated with seeking and using professional retirement planning help", *Family and Consumer Sciences Research Journal*, Vol. 30 No. 1, pp. 37-63.
- Ryan, R. M. and Deci, E. L. (2000). "Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being," *American Psychologist*, 55(1), 68-78.
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57, 1069-1081 National Bureau of Statistics (2017) Reports www.nigerianstat.gov.ng
- Nuttman-Shwartz, O. (2004). Like a high wave: Adjustment to retirement. *The Gerontologist*, 44, 229-236.
- Ntoumanis, N. (2010). Self-determination and physical education. *Journal of physical education*. Vol.12 4(5).
- SSNIT (2015). *SSNIT pension review*. Social Security and National Insurance Trust. Retrieved February 10, 2016 from http://www.ssnit.org_gh/news/2016-ssnit-pension-review.
- Sheldon, K. M. and Kasser, T. (2001). Getting older, getting better? Personal strivings and psychological maturity across the life span. *Developmental Psychology*, 37, 491-501.
- Shultz, K., and Adams, G. (2007). *Aging and Work in the 21st Century*, 1st Edn. New York, NY: Psychology Press.
- Straub, D.W. (1989). Validating instruments in MIS research. *MIS quarterly*, 13(2), 147-169
- Van Praag, B.M.S., Frijters, P. and Ferreri-Carbonnell, A. (2003). *The Autonomy of subjective well-being*. *Journal of Economic Behavior and organisation*, 51, 29-49. Doi.10.1016/s0167-2681(2)00140-31.
- Wehmeyer, M. L. (1992). Self-determination: Critical skills for outcome-oriented transition services. *The Journal for Vocational Special Needs Education*, 39, 153-163.
- Wehmeyer, M. L., Kelchner, K. and Richards, S. (1996). Essential characteristics of self-determined behavior of individuals with mental retardation. *American Journal on Mental Retardation*, 100, 632-642.
- Wehmeyer, M. and Schwartz, M. (1997). Self-determination and positive adult outcomes: A follow-up of students and youth with mental retardation or learning disabilities. *Exceptional Children*, 63, 245-255.
- Wehmeyer, M. L., K. A. Shogren, T. D. Little, and S. J. Lopez. (2017). "Introduction to the Self-determination Construct." In *Development of Self-determination Through the Life-course*, edited by M. L. Wehmeyer, K. A. Shogren, T. D. Little and S. J. Lopez, 3-16. Dordrecht: Springer.
- Yamane, T. (1973). *Statistics: An Introduction Analysis*, Harper & Row, New York, NY.

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ABSTRACT

The rate at which corporations are now being expected by the investors to comply with tax rules and regulations is now increasing. This can be traced to awareness on the part of investors of the negative effects of tax aggressiveness on their environmental returns. This paper therefore examined Board Characteristics and tax aggressiveness. Data were sourced from 20 manufacturing companies listed on the Nigerian Stock Exchange for 10 years (2006-2016), the data were analyzed using regression analysis and correlation model with the aid of SPSS software. It was found that there is no significant relationship between board size and tax aggressiveness. It is recommended that companies should focus on businesses and policies that will maximize Shareholders wealth rather than activities that will reduce tax liability.

Keywords: Board Characteristics, Tax Aggressiveness, Shareholders wealth, Tax Liability.

1.0 INTRODUCTION

In the past few years, the taxes have widely been considered as a motivating factor in many corporations decisions. It has received much attention in recent literature. It is increasingly being expected of corporations that they demonstrate to investors that they are complying with tax rules and regulations, because investors are aware that tax aggressiveness has a detrimental effect on their investment returns (Henderson, 2005).

The role that government plays in choosing a tax strategy is a pivotal one. Managers attach a great importance to achieve their objectives following the deployment of tax aggressive activities. Tax aggressiveness is an arrangement which is used for the sole purpose of avoiding tax payment. It results in, noticeable costs and profits for management, in addition to reduction in available cash flow to the company and the shareholders.

Tax planning is the planning and operation of business activities within the domain of the existing laws in a way that the business realizes the best tax position, and also achieving its set objectives. In other words, tax planning include not only strategies aimed at the minimization of tax liability but also considers the cash flow effect on the business in terms of when it is most advantageous for the business to settle its tax liability without incurring any penalty. In a nutshell, tax planning is an act of transferring value from the state to the firm.

The greatest interest of shareholders is

profit maximization, and one definite means of achieving this is through cost reduction. Taxation is one of the costs of doing business and therefore constitutes a serious barrier to wealth maximization. Therefore, In order to minimize the cost of taxation, tax planning becomes imperative for management. Tax planning has been established as having pivotal influences on corporate governance by increasing the value of the firm. However, it is important to note that tax planning has its associated costs. Such costs include administrative costs for professionals such as lawyers, accountants and consultants in planning the strategies and the risk of legal challenges and penalty.

Also worthy of note is the fact that the penalty and administrative costs associated with tax planning appear to be greater than its advantages. Besides this, when management engages in transactions which are designed only for minimizing tax liability, government may mischaracterize such transactions through the manipulation of financial and operating results so as to avoid the risk of tax audit and penalty. Such mischaracterization violates the rules of corporate governance which include transparency, accountability and accurate disclosures.

While planning could be said to increase corporate profitability, the payment of appropriate taxes is seen as significant factor of social responsibility. And the interest of shareholders in corporate social responsibility has increased in recent times. Paying a fair amount of taxes infers

ethical behavior that companies are required to present to the public. The act of minimizing tax liability is therefore considered an unethical behavior.

Statement of the Research Problem

Although many research works have been conducted in the area of corporate tax planning especially, in developed countries, only few of those studies were able to relate corporate tax planning to corporate governance. More so, there seem inadequate empirical literatures in Nigeria on variables under study especially in the manufacturing sector. It is in to close this existing gap that this study is conducted in Nigeria context as a developing nation with a very distinctive business environment.

There are many factors that affect business in Nigeria ranging from Economic factors such as inflation rate and lending rate, religious belief where women are caged and ban from participating in activities, and power problem where most businesses are run on generator, political factor where politics dictate the business space in Nigeria. All of the above mentioned factors have made Nigeria business environment to be different from other developed countries of the world. It is in the light of the above that this study wishes to address board characteristics and tax aggressiveness in Nigeria. The independent variables are Board size, Gender diversity and non-executive directors while the dependent variable is effective tax rate.

Statement of Hypothesis

Hypothesis 1

The size of the corporate board has no significant effect on tax aggressiveness

Hypothesis 2

The percentage of women in the board has no significant effect on tax aggressiveness

Hypothesis 3

There is no relationship between outside directors on the board and tax aggressiveness

2.0 LITERATURE REVIEW

Undoubtedly, tax is one of the major sources of government revenue. According to the revenue generation statistics which was made available by Federal Inland Revenue Service In 2011-2012, profits tax contributed to over 50% of the total tax revenue of the Nigerian government. Consequently, it is important for any government not to be in the dark about the factors which affect the tax revenue. Just like the elasticity appears in demand-supply curve, tax is, from the company's point of view, tax is just like an expenses for the companies in which it should be minimized, although the increase in tax rate may not necessarily lead to increase in tax revenue of the government. Resent research shows that the corporate governance is playing an important role in the "tax elasticity".

Companies tax aggressiveness can be seen in two ways. One is the legal way that is to find out what kinds of transactions are favourable under the current law. It is the legal tax avoidance and it is one kind of the valid services provided by the accountants. The second way is to do tax sheltering.

According to Freedman (2008), tax law can influence corporate governance by offering privileges or imposing penalties. Additionally, they concluded that tax rules usually result in transparent and complicated tax-driven structures. Among other things that also affect tax compliance, according to them, are the size of the business, ownership, competition, and audit controls; industry and age do not have effect on this.

Okpara (2010) defines corporate governance as the manner in which organizations are managed and the nature of accountability of the managers to the owners. It is the technique by which companies are directed and managed. It means conducting the business affairs as per the stakeholders' desires. Governance is undertaken by the Board of Directors and the concerned committees for the company's stakeholders' benefit. It is all about balancing individual and societal goals as well as economic and social goals.

O'Donovan (2003) defines corporate governance as an internal system encompassing policies, processes and people, which serve the needs of shareholders and other stakeholders, by directing and controlling management activities with good business savvy, objectivity and integrity.

The Ultimate Business Dictionary (2003) defines corporate governance as the managerial control of an organization, which can reduce the risk of fraud, improve company performance, leadership, and demonstrate social responsibility. It is the

interaction between various participants (shareholders, Board of Directors, and company's management) in shaping a corporation's performance and the way it is proceeding towards. The relationship between the owners and the managers in an organization must be healthy and there should be no conflict between the two. The owners must see that an individual's actual performance is according to the standard performance.

According to Donaldson and Davis (1994) and Hawley and Williams (1996), corporate governance: (i) aims to promote culture in which directors are given privacy to the ethical pursuit of shareholders' interest (ii) allows a review of audit regulation, corporate disclosure framework and shareholders' participation to improve the accountability and transparency of companies (iii) ensures that audit committee assists board of directors in its oversight of the integrity of the financial statement of companies, as well as compliance with legal and regulatory requirement, and the performance of the company's internal audit function (iv) makes companies to be more credible and ensures managerial system that promotes creativity and entrepreneurship (v) helps to maximize corporate value by enhancing the transparency and efficiency of the corporation for the future (vi) prevents theft and fraud through mechanisms designed by the board and management (vii) focuses on improving the organization's regulatory and legal arrangements in order to effectively enforce contracts and protect corporate

property right (viii) builds a system of rules and voluntary practices that guide board members in the execution of their responsibilities, and stipulates conduct of other corporate fiduciaries (ix) ensures the disclosure of relevant and significant information to investors and other stakeholders.

According to the Organization for Economic Co-operation and Development (OECD) (2004), the commonly accepted principles of corporate governance include: (i) rights and equitable treatment of shareholders shall be enhanced through effective communication of information that is understandable and accessible as well as encouraging shareholders to participate in Annual General Meetings (AGM) (ii) organizations should recognize that they have legal and other obligations to all legitimate stakeholders. This entails the protection of stakeholders' interest (iii) the key roles of Chairman and Chief Executive Officer (CEO) should not be held by one person. The board needs a range of skills and understanding to be able to deal with various business issues and have the ability to review and challenge management performance (iv) organizations should develop a code of conduct for their directors and executives that promotes ethical behavior, integrity and rational decision making; organizations should clarify and make public the roles and responsibilities of board and management to provide shareholders with a level of accountability. This is to ensure accurate disclosure and transparency.

Woghiren and Imade (2005) stated that

issues involving corporate governance principles include: oversight of the preparation of the entity's financial statements, internal controls and the independence of the entity's auditors, review of the compensation arrangement for the CEO and other senior executives, the way in which individuals are nominated for the position on the board, the available resources to directors in carrying out their duties, oversight and management of risk, and dividend policy.

The effectiveness of the board depends on its size. In fact, the size of the board can influence the management policy of the company. It refers to the number of directors on the board.

The board of directors is the top executive unit of a company and be responsible for supervising of the company's management. And it is legally and ethically responsible for the shareholders.

Studies argued that the board of directors as a significant part of corporate governance code is responsible for the decline in shareholders' wealth, corporate failure and the decline in the performance of firms. This is due to the lack of vigilant oversight functions by the board of directors, the board relinquishing control to corporate managers who pursue their own self interests. So, various corporate governance reforms have specifically emphasized on appropriate changes to be made to the board of directors in terms of its composition, structure and ownership configuration to arrive at a better performance

According to Tedds (2014), argued that the Smaller boards are more efficient and faster in decision-making because it is more difficult for the firm to arrange board meetings and for the board to reach a consensus, and when the board size is bigger it will be easier for CEO to have a dominant on the board and increase the CEO power in decision-making. In contrast, board size have a positive impact on firm performance, especially, with larger board size because it contributes more towards firm performance because larger board size means that there are more ideas and skills that can be shared among board members. Large boards can't monitor or control the agency problem as well as smaller boards. He reported that board size is positively related with firm performance.

Average board sizes

The size of board differs from one organization to another. Average figures only reflect what exists, not a recommended norm. Newly-formed boards often start cautiously with a small number of members, and expand as the organization gets bigger and the programs and services diversify. It is common to encounter large boards in older, more institutionalized organizations where a principal role of the board members tends to be fundraising. Small community-based nonprofits are often governed by a few devoted volunteers.

Gender diversity

Corporate diversity is defined as the variation of the age, race, ethnicity, gender, and social/cultural identities among

employees within a specific corporation. Walt and Ingley (2003) defined diversity in the composition of the Board as the varied combination of attributes, characteristics and skills that their members have. This definition is also applied to the top management of an organization.

Women and minorities have historically been under-represented on corporate boards of directors but this began to change in the 1990s (Farrel & Hersch, 2005). Usually two categories of diversity are considered. The first one is demographic diversity. This type is observable, because it is based on easily detectable factors, such as sex, race or level of education. The second type cannot be observed, and needs cognitive considerations because it refers to non-visible attributes such as knowledge, skills, profiles and individual capabilities.

Much of the research about diversity is articulated in demographic terms. The reason for this is that there are reliable databases which make objective measurement possible. Milliken and Martins (1996) find that demographic variables provide objective and valid representations of attributes related to non-observable diversity attributes, such as risk aversion and pro activity. Therefore, many empirical studies assume that cognitive variables are correlated systematically with demographic variables. As a result, gender diversity has generated a considerable amount of literature related to demographic diversity. One of the most frequent approaches is focusing on distributions by gender. Gender imbalance

is a fact, whether at work or within a profession. This also happens in almost every geographical area.

Corporate tax planning (Tax aggressiveness)

Many studies have allowed us to detect the different definitions of tax aggressiveness. Tax aggressiveness is defined as the effort of the company to minimize tax payments using aggressive tax planning activities and tax avoidance. It seems to Frank(2009) that the aggressive tax returns is the manipulation to lower tax income due to a kind of tax planning that can be considered as tax management. This concept may have multiple conceptualizations, references and even different ways to measure, but most of them have the same meaning and the same purpose but differs in their repercussions on the companies' health. Tax aggressiveness can be seen as simple trigger tax management activities that are used for tax planning and have an arrival point for tax evasion.

It is an attempt to utilize legal pitfalls to avoid paying taxes on the grounds that no conditions that involve taxes are available. It is described as a set of procedures and policies in which the tax payer follows to minimize the amount of due tax or to be exempted from tax. In a nutshell, tax planning aimed at reducing tax payable to strive for maximum tax benefit. However, when this is achieved through some illegal means, acts or procedures, it is seen as a deceit or fraud and so criminal. This means of reducing tax liability through illegal acts is known as tax evasion.

Sharayri and Momani (2009) stated that

tax evasion is the alleviation of tax burden by the tax payer in a way that conflicts with tax legislations in effect. It is manifested through understatement of income and inflation of claims; forgery, fraud, willful default or neglect; non-compliance with the provisions of the Act; failure to answer queries; making of incorrect returns by omitting or understating any profit liable for tax; providing incorrect information; declaring false statements and returns for purpose of obtaining any deductions, set-off reliefs or refund; knowingly making false representations in a return, account or particulars made or furnished with respect to tax (Part XIII, CITA, 2004; Part XI, PITA,2004). The Nigerian tax laws treat tax evasion as a civil rather than criminal offence.

The possible areas of focus in corporate tax planning are: form, nature and size of business, capital mix, choice of accounting period, market structure, investment policy, dividend policy Alabi, (2001). The form, nature and size of business are given due consideration in tax planning. The sole trading business and the partnership business are not liable to tax as business entities but as individuals while corporations are legal entitles and so liable to taxes on their income. The nature of business such as agriculture, drilling, mining, manufacturing, construction, wholesaling, retailing, exportation, importation, transportation, banking, insurance, communication, hospitality, tourism, etc has some tax implications. The size of business such as large-scale, medium scale, and small scale equally affects tax considerations. An examination

of the forms, nature and size of business revealed the following tax considerations;

(i) A company is exempted under the minimum tax rule if it has at least 25% foreign equity capital or it carries on agricultural trade or business; (ii) Companies engaged in agricultural production and manufacturing are allowed to make a total claim for their capital allowances without restriction whereas for other companies the maximum capital allowances claim is restricted to 66 $\frac{2}{3}$ % of their assessable profit; (iii) New qualifying capital expenditure on plant and machinery used in manufacturing, agricultural production, ranching and plantations, construction, and public transportation with a fleet of not less than three buses attract additional 5% initial allowance; (iv) Under the Industrial Development (Income Tax Relief) Act (1990), companies granted pioneer status enjoys a tax holiday for a minimum of three years and for an additional two years, maximum. Also dividend declared from a pioneer profit is tax exempt in the hands of the recipient; (v) A company in the agricultural sector can carry forward losses incurred indefinitely while companies in other sectors can carry forward their losses for a maximum of four years; (vi) There is a hundred percent capital allowance on capital expenditure incurred on motor vehicles used for public transportation (intercity); (vii) a company carrying on business as a manufacturing exporter is granted an additional annual capital allowance of 5% on its plant and machinery computed on cost; (viii) A small business with turnover of not more than

N1,000,000 engaged in manufacturing, agriculture, wholly export trade or mining of solid minerals, enjoys a lower rate of tax at 20% on its total profit for a minimum period of three years and a maximum of five years from the date of commencement; (ix) Investment allowances are granted under Section 27 of the Companies Income Tax Act (CITA) (2004) (as amended) on qualifying capital expenditure incurred on plant and machinery used in manufacturing business and in agricultural production other than marketing and processing in the first year of acquisition at the rate of 15%. The 15% is computed on the cost of purchase of the asset and is not deducted from the cost of the asset in arriving at the residue of qualifying expenditure for annual allowance purposes.

The form and source of capital employed by a business affects its tax liability. While debt capital attracts interest cost, the cost of equity capital is dividend. Under the tax laws, interest cost is an allowable expense and results in tax savings, but dividend is not a tax deductible expense. To ensure that control is not lost by equity capital providers and for substantial tax savings, an optimum capital mix (i.e. the ratio of debt to equity) should be maintained. (Kiabel and Nwikipasi, 2001). More so, if there is an element of foreign participation in the company amounting to at least 25% of its equity capital, the company will be exempted from the minimum tax provision (S.33 CITA, 2004).

From the date a business commences, periodic reports based on its accounting

date will be prepared until the business ceases to exist. The questions: of what date to commence a business? What accounting date is appropriate for periodic reporting? And what date to end the business, have some tax implications. To provide answers to the above questions, under the Nigerian tax system considerations should be given to the following conditions:

(i) The date of commencement should be planned close to the end of the government fiscal year. This will reduce the basis period and consequently the total profit; (ii) the date of cessation should be planned close to the beginning of the government fiscal year (iii) the choice for a reporting period should be planned such that the accounting year end is as close as possible to the government tax year. This will give the business a substantial tax advantage in terms of when the tax liability falls due; (iv) For capital gains tax consideration, disposals should be planned for the earlier period of assessment year so that the proceeds could be utilized for a long time before the tax is due since capital gains are assessed on a current year basis (v) For a new trade, under the commencement rule, the first and second years are assessed on actual basis while the third year is assessed on preceding year basis. But the tax payer has a right to elect to have the second and third years of assessment on actual basis if that leads to lower tax burden. However, the election must be made within two years from the end of the second year of assessment.

To achieve some tax benefits, a company may restructure its market. For example, a

manufacturing firm may restructure its market to qualify as a manufacturing exporter, an exporter may restructure its market by engaging in foreign direct investment in manufacturing; a company in foreign trade may restructure its affairs to deal only with those countries where Nigeria has a double taxation agreement so that it could benefit from double taxation relief; and a bank may restructure its lending to earn interest income from tax exempt sources.

When a firm invests its surplus fund, it is advisable to plan such investments in areas where tax is either at its minimum or the investments proceed is tax exempt.

In tax planning, a company has to structure out an optimal mix of dividend bonus issue for maximum tax and cash flow advantage to be achieved. In Nigerian taxation, qualifying capital expenditures attract tax incentives in the form of capital allowances (initial and annual).

According to Alabi (2001), capital expenditures could be incurred by a company to create tax advantage and achieve cash flow improvements in so many ways among others are acquisition of qualifying assets, sell and buy back old asset.

There are costs associated with tax planning. The first cost is the one directly connected with the engagement in such activities. These costs may be internal or external. The internal costs are mainly the time spent by managers and employees on structuring the tax saving opportunities that could not be devoted to other activities. The external costs are the

expenses for tax consultants and the other expenses necessary to set forth the tax planning opportunity. The second cost is the exposure to the uncertainty of an audit and any attendant penalties that may emerge. These include both the risk of overpaying taxes and the risk of being audited by the tax authorities for underreporting the income and thus paying less tax than legally required. The third cost is the implicit taxes that may emerge as consequences of a specific tax planning strategy; the fourth cost is compliance cost; finally, is the so -called corporate governance cost, which is related to the obscuration of these actions from tax authorities and to the increase of the agency costs. In fact, the necessary obfuscation may create an incentive for managers to obtain self-serving objectives at the same time, and will therefore enforce shareholders to induce managers not to engage in such collateral activities, increasing agency costs and transparency issues.

Where a tax planning strategy is illegal, it would be subject to penalties. However, in the case of tax evasion and tax avoidance, the corporation's payoff depends on whether or not it is investigated by tax authorities, and, assuming it is, whether tax authorities consider the strategy as illegal, and therefore subject to penalties or not.

The choice of individual taxpayers is based on three factors: (i) the probability of detection and punishment, (ii) the penalty structure and (iii) the risk aversion of the taxpayer. Nevertheless, if this is true in the individual taxpayers' framework, it does

not mean it is necessarily true from the perspective of corporate taxpayers.

In fact, the corporate taxpayers' tax attitude toward risk must be analyzed within the agency framework. Even if shareholders (as principals) may provide general guidance with regard to the corporation's tax attitude toward risk, managers (as agents) make the practical tax choices (Sartori, 2009).

In summary, corporate governance with average board size can reach a decision more quickly thereby achieving the corporate tax planning more effectively which helps in maximizing shareholders wealth. If women are given adequate place on the board, their presence can hold back the tax planning strategy within the firm.

Theoretical Review

The debate about corporate governance is typically traced way back to the early 1930s and the publication of Berle and Means' "The Modern Corporation and Private Property". Adolf Berle and Gardiner Means noted that with the separation of ownership and control, and the wide dispersion of ownership, there was effectively no check upon the executive autonomy of corporate managers. In the 1970s these ideas were further refined in what has come to be known as Agency Theory. In a series of now classic articles writers such as Jensen and Meckling, Fama, and Alchian and Demsetz offered a variety of explanations of the dilemmas faced by the 'principal' who employs an 'agent' to act on his or her behalf. As applied to corporate governance

the theory suggests a fundamental problem for absent or distant owners/shareholders who employ professional executives to act on their behalf. In line with neo-classical economics, the root assumption informing this theory is that the agent is likely to be self-interested and opportunistic. (The assumption of owner/shareholder property rights obviates any need to think about the principal's motives.) This raises the prospect that the executive, as agent, will serve their own interests rather than those of the owner principal. To counter such problems the principal will have to incur 'agency costs'; costs that arise from the necessity of creating incentives that align the interests of the executive with those of the shareholder, and costs incurred by the necessity of monitoring executive conduct to prevent the abuse of owner interests.

It is important to note that agency theory is deductive in its methodology. Its assumptions have been the subject of extensive empirical research but this has typically relied on the testing of various propositions in relation to large data sets. Agency theorists take self-interested opportunism as a given. They feel no need to explore, as we have done in this research, the attitudes, conduct and relationships that actually create board effectiveness. Instead they have busied themselves with exploring the effectiveness of the various mechanisms designed to make executive self-interest serve shareholder interests. To date such studies have proved entirely equivocal in terms of the relationship between good governance and firm performance. Agency theory assumptions have nevertheless been

highly influential in shaping the reform of corporate governance systems. Here it is essential to distinguish between external, market-based governance mechanisms and board-based mechanisms.

In relation to market governance then clearly the openness and integrity of financial disclosures is vital to the operation of the stock market in determining a company's share-price and its underlying market valuation. Market governance relies for its effectiveness on the remote visibility such financial information creates, and, as importantly, on the effects on the executive mind of the knowledge of such visibility. Agency theorists point to the important disciplinary effects of two further market mechanisms. The first is the 'market for corporate control', the potential for takeovers to discipline executives by providing a mechanism whereby ineffective executive teams can be displaced by more effective executive teams. The second - 'the managerial labour market' - operates at an individual level; poor executive performance will threaten an individual's future employment potential whilst good performance will have positive reputational and hence career-enhancing effects.

To these external 'market' mechanisms must be added the disciplinary effects on company and executive performance of external monitoring, both direct and indirect. Formally, it is the Annual General Meeting provides an opportunity for directors to report face-to-face to their shareholders. In practice, however, the

formal accountability of the AGM has been augmented and diverted by a variety of other mechanisms. At the time of results announcements, companies will typically conduct presentations for sell-side analysts who then serve as key intermediaries between companies and their investors. These general briefings are then supplemented by a large number of (typically annual) private face-to-face meetings between executives and their key investors.

In addition to these external market and monitoring mechanisms, agency theory has also informed the internal reform of boards of directors. One of its most significant direct contributions came in the form of the widespread adoption of executive share-option schemes, which have only very recently fallen into disrepute in the UK. Such schemes follow directly from the agency assumption that the exercise of executive self-interest must be aligned with the interests of shareholders. Less directly, the influence of agency theory assumptions can be seen in the seminal reforms promoted by the Cadbury Committee 'Code of Best Practice', and its subsequent elaboration by Greenbury, Hampel, Turnbull and most recently Derek Higgs. With the possible exception of Turnbull, the work of these different committees was occasioned by visible corporate failures or perceived executive abuses of power, and has resulted in a progressive elaboration of the 'control' role of the board. The 'independence' of the non-executives directors who must now constitute 50 per

cent of the board, their lead role on audit, nominations and remuneration committees where conflicts of interest between executive and shareholder are potentially most acute, along with progressively more stringent provisions around the separation of the roles of chairman and chief executive, are all consonant with agency theory's assumption that the interests of the owner/ shareholder are potentially at risk from executive self-interest, in the absence of close monitoring by independent non-executives.

Empirical Literature

Kiabel and Akenbor (2014) examined the impact of tax planning on corporate governance in Nigeria banks. He used regression analysis and Pearson Product Moment Co-efficient of Correlation and found that tax planning has a positive significant impact on corporate governance in Nigerian banks.

Aliani and Zarai (2012) investigated the impact of board of director's attributes on corporate tax planning in a developing country. In using regression analysis, he discovers that tax planning is influenced by duality and diversity on the board of directors. While duality unveils a negative relation with effective tax rates, diversity on the board shows a positive relationship. Lanis, Taylor and Richardson (2015) assessed the effect of Board of Director Gender and corporate Tax aggressiveness. They used 418 U.S firms for 4 years period of 2006 to 2009. They used ordinary least square regression to analyse their data and they found out that, there is a negative and

statically significant association between female representation on the board and tax aggressiveness.

Jalali, Jalali, Morid, Gashasbi and Foroodi (2013) examined the impact of board of directors' structure on firm tax avoidance. Logistic regression method was used in order to evaluate the effect of a number of factors such board size on the possibility of applying aggressive tax policies by companies and found that board size has no significant impact on effective tax planning.

Ahmedand Khaoula (2013) investigated the effects of board of directors' characteristics on tax aggressiveness. He used regression analysis to determine which variables that can reduce tax aggressiveness and found that the percentage of women in the does not affect the activity of tax aggressiveness. He also found that return on assets and sizes of the firm are associated in a significant way.

3.0 METHODOLOGY

The technique of sampling employed in the study is segment sampling or part proportion of the total population. The sample size is also adduced to be a representation of the whole population. Thus, the sample of this study is made up of a randomly selected twenty manufacturing companies listed on Nigerian Stock exchange between 2006 to 2016

Based on the nature of incorporated variables in this study, secondary data were employed for the study. The data were sourced from Fact book of Nigerian Stock exchange and annual published report of various companies on the internet.

In the course of this research work, major data was sourced from Fact book 2012, 2013 and Nigerian Stock exchange (NSE) annual reports as well as unpublished materials from academic journals works earlier done in this area and the internet.

Model Specification

In studying the link between the characteristics of board of directors and tax aggressiveness, logarithmic model is used so as to perform an analysis regarding various parameters included this model. Logarithmic model is one of the transformations that are used in data analysis for obtaining a packet data that most closely matches the standard form (normal distribution).

This following, therefore, is the estimated regression model:

$$ETR = BSIZE + INDEP + DIV$$

Where,

ETR denote the effective tax rate measure, and *B*SIZE, *INDEP*, *DIV* are all independent variables measures as discussed in table 1.

Table 1 Study Variables

Variables	Abbreviations	Measures Used
Effective Tax Rate	ETR	Total tax exp/pre tax income
Board Size	BSIZE	Natural log of the total number of directors
Independent Directors	INDEP	Natural log of the total number of directors
Board diversity	DIV	% of women on the board

4.0 DATA ANALYSIS AND TEST OF HYPOTHESES

The data used for the study consist of published financial statements of twenty

selected quoted companies. The data were analyzed using regression model and correlation analysis and the results presented in tables and statistical figures.

Table 2: Descriptive Statistics Board size and Tax aggressiveness

	Mean	Std. Deviation	N
Tax Aggression	28.26	15.530	220
Board Size	10.06	2.803	220

Source: Output of data analysis by author 2019 using SPSS

Test of hypotheses

Hypothesis 1

H0: The size of the corporate board has no significant effect on tax aggressiveness

Table 3: Model Summary^b Board size and Tax aggressiveness

R	R ²	Adjusted R ²	Std. Error of the Estimate	Change Statistics					Durbin-Watson
				R ² Change	F Change	df1	df2	Sig. F Change	
.026 ^a	.001	-.004	15.560	.001	.142	1	218	.707	2.259

Source: Output of data analysis by author 2019 using SPSS

Table 4: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	29.686	3.917		7.579	.000
Board Size	-.141	.375	-.026	-.377	.707

Source: Output of data analysis by author 2019 using SPSS

From table 3 and 4 above, the regression coefficient R is .026 (weak relationship) with R² of .001 at 2.259 Durbin Watson value. In addition, the significant F change is .707. Thus there is insignificant relationship since the significant F change is higher than .05 Alpha level of significant.

Further analysis of regression coefficient (table 4) shows that the standard coefficient Beta is -.026. Thus the weak relationship that exists between board size and tax aggression is negative. This means that for any unit increase in the size of the board of directors the tax aggressiveness

will be not be significantly affected at -.026 weak levels. This fit in with the work which was reported by Aliani and Zarai (2012), “the non-significance between the size of the board and tax aggressiveness in the American context”. In the work, they noticed that the strategies used in minimizing tax expenses are not influenced by the number of directors. Therefore, the H0 hypothesis is accepted

Hypothesis 2

H0: The percentage of women in the board has no significant effect on tax aggressiveness

Table 5: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	26.214	1.742		15.046	.000
Women on the Board	1.540	1.047	.099	1.470	.143

Source: Output of data analysis by author 2019 using SPSS

Table 6: Model Summary^b Women in the board and tax aggressiveness

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R ² Change	F Change	df1	df2	Sig. F Change	
1	.099 ^a	.010	.005	15.489	.010	2.161	1	218	.143	2.274

Source: Output of data analysis by author 2019 using SPSS

Table 7: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	26.214	1.742		15.046	.000
Women on the Board	1.540	1.047	.099	1.470	.143

Source: Output of data analysis by author 2019 using SPSS

From tables 6 and 7 above, the regression coefficient R is .099 (weak relationship) with R^2 .010 at 2.274 Durbin- Watson value. In addition the significant F change is .143 which is higher than .05 Alpha level of significant. Further analysis of regression coefficient table 3 shows that the standard coefficient Beta is .099. This shows a weak relationship between the number of women on the board and tax

aggressiveness. The H0 hypothesis is accepted and H1 is rejected. This also confirms the work of Aliani and Zarai (2011) mentioned above.

Hypothesis 3

H0: There is no significant relationship between outside directors on the board and tax aggressiveness

Table 8: Model Summary^b outside directors on the board and tax aggressiveness

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R^2 Change	F Change	df1	df2	Sig. F Change	
1	.019 ^a	.000	-.004	15.563	.000	.081	1	218	.776	2.254

Source: Output of data analysis by author 2019 using SPSS

a. Predictors: (Constant), Outside Director (Non-Executive)

b. Dependent Variable: Tax Aggression

Table 9: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	28.036	1.321		21.227	.000
Outside Director(Non Executive)	.090	.318	.019	.284	.776

Source: Output of data analysis by author 2019 using SPSS

a. Dependent Variable: Tax Aggression

From the above tables(8 & 9), the regression coefficient R is .019 (weak relationship) with R^2 .000 at 2.254 Durbin-Watson value. In addition, the significant F change is .776. Thus there is insignificant relationship since the significant F change is higher than .05 Alpha level of significant. Further analysis of regression coefficient (table 7) shows that the standard coefficient Beta is .019. Thus there is no significant relationship between independent director and tax aggressiveness. H0 is therefore accepted and H1 is rejected.

Discussion and Analysis of Findings

Based on the results of the regression analysis used to test hypothesis 1, it proves that board size (BSIZE) exerts a negative and this conform to the worksofLanis, Taylor and Richardson (2015) and Jalali et. al. (2013) that examined the impact of board of directors' structure on firm tax avoidance.

Logistic regression method was used in order to evaluate the effect of a number of factors such board size on the possibility of applying aggressive tax policies by companies and found that board size has no significant impact on effective tax planning. This statistically insignificant relationship exists as Fchange is greater than .05 Alpha levels. Therefore, H0 hypothesis was accepted.

Based on the results of the regression analysis used to test hypothesis 2, it proves that insignificant relationship exist between tax aggressiveness and the percentage of women on the board. At the

.05 Alpha levels, the F-change is .143 greater than .05 Alpha level. Therefore null hypothesis is accepted.

The weak coefficient indicates that the more women we have on the board has no significant relationship with corporate tax aggressiveness. This confirms the work of Ahmed (2013) investigated board characteristics and tax aggressiveness. He used regression analysis to determine which variables that can reduce tax aggressiveness and found that the board size and the percentage of women in the board do not affect the activity of tax aggressiveness significantly.

5.0 SUMMARY AND CONCLUSION

Summary

This study considers board Characteristic and corporate tax aggressiveness. Based on a choice-based sample of 20 manufacturing companies listed on Nigeria Stock Exchange during 2006-2016, our study employed regression analysis to test the prediction that the diversity, size of board and percentage of independent directors have no relationship with the activity of tax aggressiveness. Overall, this study provides unique insights into the association between diversity of board director and tax aggressiveness.

Recommendations

Based on the research problems, research questions along with the findings and conclusion reached, the followings are therefore recommended;

1. Companies should focus on businesses and policies that will

maximize shareholders wealth rather than activities that will reduce tax liability.

2. Government should put in place policies that will encourage women to participate in corporate governance instead of caging them in the name of religion and culture.
3. Companies in Nigeria should direct their investments to businesses that

grant good tax savings instead of focusing on having independent directors which has no impact on tax planning. Such investment could be in the area of qualifying capital expenditure taking into account the nature, timing and date of acquiring such capital expenditure.

REFERENCES

- Aliani, K., & Zarai, M. A. (2012). The board of directors and the corporate tax planning: empirical evidence from Tunisia. *International Journal of Accounting and Financial Reporting* 2(2), 142-157.
- Alabi, S. (2001). Tax planning; a paper delivered at the workshop on Nigerian corporate and personal income tax management; held in Lagos on 14th August.
- Ahmed, Z. & Khaoula, F. (2013). The effect of board of directors characteristic on tax aggressiveness. *Research Journal of Finance and Accounting* 4(4), 140-147
- Donaldson, L. & Davis, J.H., (1991). Stewardship theory or agency theory: CEO governance and shareholder returns. *Australian Journal of Management*, 16, 49.
- Frank, M., W. (2009). "Tax Reporting Aggressiveness and Its relation to aggressive financial reporting". *The Accounting Review* 84(2), 467-496.
- Farrel, K. A. & Hersch, P. L. (2005). Additions to corporate board: the effect of gender. *Journal of corporate Finance* 11, 85-106.
- Freedman, J. (2008). Financial and tax accounting: transparency and 'truth'. Schon (ed), tax and corporate governance. Working paper no. 02/2008. <http://ssrn.com/link/oxford.legal.studies.html> retrieved on 11/01/2019.
- Hawley, J. P., & Williams, A. T. (1996). Corporate governance in the United States: the rise of fiduciary capitalism. *School of Economics and Business Administration*.
- Jalali, M., Jalali, F., Morid, F., Gashasbi, A. & Foroodi, M. (2013). Impact of board of director structure on tax avoidance in companies listed in Tehran stock exchange. *International Journal of Applied and basic Sciences*. 4(9) 2526-2531
- Henderson, G. I. (2005). Responsible tax, Henderson Global Investors, London, UK.
- Organisation for Economic Cooperation and development: Principle of corporate governance OECD (2004). OECD development centre working paper No 18 www.wcd.orJ/dataoecd/1W6II2A3258.5pjif
- Kiabel, B.D and Nwikpasi, N.N. (2001). Selected aspects of Nigerian taxes; Owerri; Springfield Publishers Ltd.
- Kiabel, B. D. & Akenbor, C. O. (2014). Tax planning and corporate governance in Nigerian banks. *European Journal of Business and Management* 6(9), 235-243.
- Okpara, G.C. (2010). "Monetary policy and stock market returns: evidence from Nigeria" *Journal of Economics* 1(1) 13-21
- O'Donovan, G. (2003). Board culture of corporate governance. *Corporate Governance International Journal*. 6(3); 22-30.
- Lanis, R., Taylor, G. & Richardson, G. (2015). Board of director's gender and corporate tax aggressiveness: An empirical analysis. *Journal of Business Ethics*. 144(3)
- Milliken, F. J. & Martins, L. L. (1996).

- Searching for common threads: understanding the multiple effects of diversity in organizational groups. *Academy of Management review*. 21, 402-433.
- Saotori, N. (2008). Effect of strategic tax behaviors on corporate Governance University of Michigan.
- Sharayri, M. & Momani G.F. (2009). The impact of tax planning on reducing income tax burden in industrial companies in Jordan-from sales and income tax evaluator's point of view. *Middle East Finance and Economics*.5; 38-48).
- Tedds, L. M. (2014). Tax non-compliance and corporate governance: a comparative study. www.researchgate.net/publication/228901937 .
- Walt, N. V. & Ingley, C. (2003). Board dynamics and influence of professional background, gender and ethnic diversity of directors: corporate governance. *An International Review* 1 (3), 218-234
- Woghiren, M.O.E. & Imade, S.E. (2005). Corporate governance: Concepts and issues, *Nigerian Journal of Business Administration*.7(1&2): 93-114. *of Business Ethics*. 144(3)
- Milliken, F. J.& Martins, L. L. (1996). Searching for common threads: understanding the multiple effects of diversity in organizational groups. *Academy of Management review*. 21, 402-433.
- Saotori, N. (2008). Effect of strategic tax behaviors on corporate Governance University of Michigan.
- Sharayri, M. & Momani G.F. (2009). The impact of tax planning on reducing income tax burden in industrial companies in Jordan-from sales and income tax evaluator's point of view. *Middle East Finance and Economics*.5; 38-48).
- Tedds, L. M. (2014). Tax non-compliance and corporate governance: a comparative study. www.researchgate.net/publication/228901937 .
- Walt, N. V. & Ingley, C. (2003). Board dynamics and influence of professional background, gender and ethnic diversity of directors: corporate governance. *An International Review* 1 (3), 218-234
- Woghiren, M.O.E. & Imade, S.E. (2005). Corporate governance: Concepts and issues, *Nigerian Journal of Business Administration*.7(1&2):

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ABSTRACT

The study applied the Leontief input-output relationship of nineteen manufacturing companies in Nigeria. The objective of the study is to investigate the extent of the interdependence between companies in the Nigerian manufacturing sector, and to determine the input-output relationship of the manufacturing sector in Nigeria. The study also examined the extent of scale efficiency of the manufacturing sector in Nigeria and the extent of technical efficiency of the manufacturing sector in Nigerian. The study used longitudinal research design by selecting some quoted manufacturing companies in the Nigerian Stock Exchange for the period 2011 to 2015. Data Envelopment analysis (DEA) was used for the empirical analysis. The result showed that there is a relationship between inputs and outputs, Chemical and Allied Product (CAP), Cutix, Dangote Cement and Greif were efficient under constant return to scale (CRS) after taking five years average inputs and outputs to sustain its efficiency within the period. While Aluminium Extrusion Industries, Chemical and Allied Product, Cutix, Dangote Cement, Dn Meyer, Greif Nigeria, Ipwa, Nigeria Ropes, Nigerian Enamelware, Paints and Coatings Manufacturers, Portland Paints and Premier Paints were scale efficient and technically efficient among the nineteen manufacturing companies sampled. The study therefore recommends that management and concerned authorities of the manufacturing companies in Nigeria should ensure that the manufacturing sectors are technically efficient. The study also suggests that the government should provide a platform for the inefficient manufacturing companies by formulating policies favourable in terms of tax relief and holiday for productive efficiency of the sector.

Keywords: *Data Envelopment Analysis, Manufacturing Sector, Technical Efficiency, Scale Efficiency.*

1.0 INTRODUCTION

Manufacturing sector is instrumental to the advancement of any nation particularly the developing countries. The advancement of manufacturing sector serves as major instrument of growth, critical condition for full employment, creation of wealth and major tool for sustainable economic advancement (Wachukwu, 2013). In the opinion of Olorunfemi, Tomola, Felix and Ogunleye, (2013), Efayena, Enoch & Patricia (2018). the manufacturing sector has major setback because of undesirable business environment due to the fact that the environment is a major source of all inputs required for the operations and activities of the firm. The inputs are usually in form of manpower, money, materials, machines and information (Okwo & Ugwunta, 2012). The environment also absorbs the manufacturing output. Generally, goods manufactured by the business are used in the environment based on the conditions of industrial development (Dickson, 2010). This environment may be either within or outside the boundaries of a country (Dickson, 2010). Leontief (1966) uses a matrix table format analysed ways of combining economic factors and theory in an economy, especially the manufacturing sector. The input-output theory is a quantitative analysis which explained the relationship between two or more industries with the aim of allocating resources in multi-sectoral economy. Miller, Karen, Polenske and Adam, (1989) opined that explaining the relationship between the inter-industry indicated the links which exist between the

manufacturing sectors in any economy. The Kaldorian theory was developed in 1957 to provide detailed explanation on the relationship between different manufacturing output growth and economic growth. This theory further explained that the relationship between manufacturing output growth and economic growth plays significant role in the growth performance of a nation economy. That is, it has the feature of increasing returns to scale of any economy (Nancy, 1992). The focus of Leontief input-output analysis is on the flow of inputs and outputs among the different manufacturing companies. Meanwhile, Data Envelopment Analysis (DEA) estimates the relative technical and scale efficiency of the Leontief input-output analysis been a mathematical programming technique (Charnes, Cooper, Lewin & Seiford, 1994). Ogundari, Ojo and Ajjibefun (2006), Benjamin, Joseph & Simon (2017) observed that DEA analysis helps to evaluate the firm's scope, scale technical and allocative efficiency of firms in Nigeria. Kirkley, Fare, Grosskopf, McConnell, Strand and Squires (2000) cited that DEA analysis assists the firm to evaluate standards and total quality management structures, efficient utilization of input, productivity and capacity utilization assess both private and social cost of outputs and examine the activities of the strategic groups. In addition, data envelopment analysis examines the relationship between inputs and outputs. Based on the foregoing, this study seeks to focus on the application of

the Leontief input-output model in the manufacturing sector.

1.1 Statement of the Research Problem

The state of manufacturing companies and industrial development in Nigeria is an indication of how Nigeria has totally abandoned the sector due to emphasis placed on oil discovery in the country including unstable government policies and programmes (Adeola, 2011). Adenikinju and Alaba (2000) argued that low industrialization became more prominent due to absence of locally sourced raw material in the country. High production cost, heavy duties, high cost of energy, poor infrastructural base and high cost of importation are some of the problems of manufacturing sector (Akinmulegun & Oluwole, 2013). Eze and Ogiji (2013) observed that most manufacturing industries in Nigeria are critically faced with problems such as issues of corruption, poor implementation and inappropriate policies frameworks engineered by lack of coordination of economic plans, misappropriation of public funds and poor structuring of economic plans. Okemini and Uranta (2008) add that lack of economic potential for rapid economic growth and development, over dependence on input materials from abroad are militating factors against industrial development in Nigeria. Thus the poor operational and technical efficiency of the management brings about wastage of capital and human resources which are limited in supply to industrial development (Adeloye, 2010). In the same vein, the government has to

identify appropriate techniques, policies or strategies that will help alleviate the problem of the manufacturing sector for sustainable economic growth and development (Akinmulegun & Oluwole, 2013).

Akpan, Ukoha, Onyenweaku and John (2012) examined links between technical efficiency, macroeconomic variables and industrial policy by providing evidence in sugar industry from 1970 to 2010 in Nigeria using regression analysis. Ogbo, Japheth and Ukpere (2014) adopted a *Chi-square statistical technique to ascertain the influence of global innovative collaboration on organizational efficiency of Nigerian Breweries Plc.* Tafamel and Akrawah (2015) conducted research on profitability and cost efficiency of the oil and gas companies in Nigeria adopting data envelopment analysis. Osamwonyi and Imafidon (2016) empirically investigated technical efficiency of manufacturing companies listed on the Nigeria stock exchange using output oriented DEA technique. In furtherance of their research Osamwonyi and Imafidon (2016), also examine if most manufacturing companies on the Nigeria Stock Exchange are operating on the production possibility frontier to know how technical and scale efficiency they are. To the best of our knowledge no empirical study has been conducted in Nigeria that applied Leontief input-output analysis to carry empirical analysis. Based on these statements, this study intends to fill the above gap by employing the Data Envelopment Analysis (DEA) to empirically examine the Leontief input-

output analysis of the manufacturing sector in Nigeria. The study also expanded the body of knowledge on the area of the Leontief input-output analysis .

1.2 Objectives of the Study

The broad objective was to apply the Leontief input and output relationship in the manufacturing sector in Nigeria. The specific objectives were to:

- (i) investigate the extent of the interdependence among industries in the Nigerian manufacturing sector.
- (ii) determine the input-output relationship of the manufacturing sector in Nigeria.
- (iii) examine the extent of scale efficiency of the manufacturing sector in Nigeria.
- (iv) determine the extent of technical efficiency of the manufacturing sector in Nigeria.

1.3 Research Hypotheses

The following hypotheses were formulated in a null form:

- H_{01} : there is no interdependence among industries in the Nigerian manufacturing sector.
- H_{02} : the input-output relationship of the manufacturing sector in Nigeria is not significantly related.
- H_{03} : the manufacturing sector in Nigeria is not scale efficient.
- H_{04} : the manufacturing sector in Nigeria is not technically efficient.

2.0 LITERATURE REVIEW

2.1 Overview of the Manufacturing Sector Performance

Manufacturing sector in Nigeria is the engine of growth that creates a potential platform for economic growth and development with the promising labour force (Akinmulegun & Oluwole, 2013). The term manufacturing is a broader term that establishes relationship between the quality and quantity of output and the right combination of inputs used to produce the right goods and services (Sharma, 1999). The manufacturing industry is primarily meant for the processing of domestic materials with the process of involving the imported inputs in the production process (Nor & Mohammed, 2014). However, the finished goods are made available to the potential buyers and consumers while the working process or intermediates goods are used for further production processes (Dickson, 2010). Efficient manufacturing process will be possible in an environment where there is good investment in efficient infrastructural facilities, availability of financial incentives from financial market and creation of enabling environment such as opportunities for firm's investment, good investment atmosphere to create jobs and increase the frontier of business activities (Malik, Teal & Baptist, 2004) According to Nor and Mohammad (2014) manufacturing is the process of transforming combined inputs into output. In the opinion of Vanish, Rajesh, Ray and Kural in (2013) the growth of manufacturing sector depends on the availability of factor of production such as capital and labour which depend on their efficiency and technical advancement which are the bases for productivity. The Nigerian manufacturing sector has been

operating under a harsh economic environment (Chima, 2012). Chima (2012) observed these problems to include poor state of infrastructural facilities, increase in cost of production, lack of access to financial resources, intense competition from imported goods and limited scope of operation. Akinmulegun and Oluwole (2013) observed that low level of purchasing power of customers, high level of sub- standard product, fake and cheap goods, dumping of all kind of products into the country all in the name of globalization, trade integration and liberalization of economic activities. These factors have contributed to the low consumption of locally manufactured products. The cost of financing depreciation of naira as against foreign currency is extremely high. More also, high cost of lending coupled with poor access to finances experienced by small businesses (Chima, 2012). Adeola (2011) observed that poor governmental policies and programmes are affecting the manufacturing companies. These policies are evidenced in high tax rate and multiple taxes. Omodele (2015) states that inadequate and inadequacy of the available infrastructural facilities is a factor creating a negative effect on the manufacturing sector's performance.

2.2 Interdependence among Industries in Nigerian Manufacturing Sector

Blanchard and Ripsman (1996) held that the extent to which the level of sensitivity of a firm's economic behaviour to procedures and advancement of firms externally with respect to its operating business environment is called interdependence

among industries. Technological development among manufacturing firms and policies that encourage the economic growth of the country internally and global competition externally are attributed to economic interdependence (United Nation, 2015). Leontief (1966) model assumes that consumers and the households are given the same preference as other industries in an economy where the output received serves as input for producing other outputs such as manpower in the case of the household and other industries in the manufacturing sector. The machines used in the production processes served as inputs for the production of further outputs. This means that one or more components of final demands are treated endogenously while the personal consumption expenditures are known as the households in the sector activities (Leontief, 1966). Leontief (1966) is of the view that the inter-industry relationship in an economy is the proof that the output from one industrial sector serves as input in another industrial sector. The inter-industry matrix provides detailed explanation on input to a manufacturing sector on one column and outputs on the row on other side. It further provides explanation for the dependence and relationship of each sector, for example customers of outputs and suppliers of inputs. The monetary values of inputs are scaled against each column while the values of inputs are indicated against each row on the analysis.

2.3 Input-Output Relationship of the Manufacturing Sector in Nigeria

The Nigeria manufacturing sector is

characterized by large number of firms producing identical products and this is based on the production function (Loto, 2012). In addition, the main production function comprises capital and labour which are used in the production of goods and services (Libanio, 2006). On the main function of the manufacturing sector's exports in the process of maintaining economic growth is a framework of a straight-forward production function that classifies the manufacturing exports as a production input (Akpan, Ukoha, Onyenweaku & John, 2012). Dietzenbacher and Michael (2004) defined input-output model as a concept that provides quantitative explanation on the interdependence of different aspect of the economy. The input-output analysis is based on efficiency which is the relationship between output of goods and services and the input resources such as human and capital resources available in the production processes (Sofoluwe, 2000). The output is derived from the production of final goods and services. The inputs are labour and energy, capital, materials and time combined to produce the desired output. According to Ark (2007:15), 'the level of productivity is the output per unit of input with a close nominal cost savings'. The term productivity is technically defined as the relationship between outputs (sales, market shares) to inputs (labour hours, cost of production, equipment). Labour cost is a manufacturing operating expenses. Cost and availability of labour have been major factors in manufacturing investment decisions (McGranahan, 2000). Okwo and Ugwunta (2012) are of the view that input

is known as raw materials, labour, investments in fixed assets, taxes, interest rates and changes in foreign exchange rate. Input cost is divided into direct and indirect cost. The direct costs are the costs that can be traceable to a particular unit of production or services while the indirect costs are those cost that are not directly traceable to any particular unit of production (Okwo & Marire, 2012). Inputs are indirect costs which are also overhead costs of production not related to a particular unit of production but cost incurred in the running of the operation of business organizations (Omolehinwa, 2000).

Production measures the efficiency in which inputs such as labour, material and support services are converted into output (Banker & Datar, 1987). The two outputs produced are denoted as Y_1 and Y_2 , written in a vector form as $Y = (Y_1, Y_2)$, the physical inputs X_1, X_2, X_3 , and X_4 are denoted by the vector $x = (X_1, X_2, X_3, X_4)$ where X_1 represents direct labour, X_2 is indirect labour, X_3 represents material consumption and X_4 represents consumption of production services. The production process indicates that the consumption of each input depends on only the quantity of outputs Y_1 and Y_2 produced and in particular is independent of the level of consumption of the other inputs. That is, $X_i = f_i(Y_1, Y_2)$, for all $i = 1, 2, 3, 4, \dots$ (2.1). In the opinion of Hossain and Karunakara (2004), the gross output determines the inclusion of raw materials as an input variable in the model might deplete the value of capital and labour in the production process that enhance growth of

the manufacturing company. The relationship between productivity, consumption and manufacturing sector performance in Nigeria was empirically investigated. The result showed that efficiency and productivity are significantly related to energy consumption price and supply in the Nigerian manufacturing sector which implied that energy plays significant role in ensuring that the impact of the manufacturing sector is achieved (Adenikinju & Alaba, 2000). The role of structural changes and transformation of manufacturing share in aggregate output firms was carried out by Elhiraika, (2008). The findings of the study revealed that rise in share of manufacturing firms has impact positively on GDP rate and reduce growth volatility. The impact of efficient inventory management on profitability of Ghana manufacturing sector was investigated, the research design was cross sectional showing data from 2004 to 2014. The study revealed that there is significant relationship between raw material inventory management and profit of the firm, which implied that efficient inventory management system could better the lot of the firm in terms of the profit to be realized (Kwadwo, 2016).

2.4 Scale Efficiency of the Manufacturing Sector in Nigeria

The scale efficiency is a measure used to determine inefficiency in the input-output process configuration during the time of manufacturing operations (Tafamel & Akrawah, 2015). The scale efficiency is used to investigate the efficient frontier under the assumption of variable returns-

to-scale. The scale efficiency is a managerial tool used to organize the inputs in the production process to bring about performance. Thus, it is an index to capture managerial performance. Scale efficiency, allocative efficiency and technical efficiency are applied in the manufacturing process to determine the degree of economic efficiency of inputs (Worthington, 2001). Total economic efficiency is possible when the firm utilizes its resources in the right direction. That is optimal technical and scale efficiency. When the firm is operating at less than total economic efficiency, allocative and technical efficiency will arise. The nature of a given situation, the strength and mix elements are some of the approaches to determine efficiency strategy (Osugwu, 2004). Productive efficiency is calculated at the lowest possible cost given a particular state of technology (Kumbhakar & Lovell, 2003). Efficiency ensures that scarce productive resources are used for the production of goods and services desirable by the consumer i.e allocative efficiency. When output is effectively distributed in a way that members of the society will not spend his/her resources anyhow given the prevailing level of income and market prices, is known as distributional efficiency. Scale economies may be technically inefficient when points on the technical production function appear on the scale anywhere than most scale efficient level while constant return to scale measures the different technical efficiency over many scales of production. Allocation of scarce productive resources

to achieve pre-determined goals and objectives is called efficiency (Hollingsworth & Parkin, 1998) as cited in (Bdour & Al-khoury 2008)

2.5 Technical Efficiency of the Manufacturing Sector in Nigeria

The manufacturing companies are vested with the production of a certain number of products, specified by a given design (Nor & Mohammed, 2014). In the technical development process, the solid goal is fashioned out, and the various means of production are duly calculated. Technical development is an interactive or always ever changing proceeding process (Ogundari, Kojo & Ajibefun, 2006). Dipak and Ata (2003) are of the opinion that the challenges facing the Nigerian manufacturing sector is the technological advancement given the international manufacturing market towards higher levels of consumption. Technical efficiency measurement is based on the assumption of effective production technology. Production technology is represented by isoquants and many functions such as profit, cost and production (Mokhtar, Alhabshi, & Abdullah, 2006). The importance of scale efficiency to firm cannot be underestimated because it helps to establish inefficiency and determine the input-output configuration defined in terms of size of the firm's operations. Scale efficiency is measured using efficiency frontiers with the assumption of variable return to scale. This helps to measure the managerial performance of the firm in terms of production of goods and services

and input combination (Bdour & Al-khoury, 2008).

2.6 Allocative Efficiency of the Manufacturing Sector in Nigeria

Tafamel and Akrawah (2015) observed that, scale efficiency measure is used to determine the inefficiency in the input-output process configuration during the time of manufacturing operations. Technical efficiency measurement is based on the assumption of effective production technology. And as such, production technology is represented by isoquants and many functions such as profit, cost and production (Mokhtar, Alhabshi & Abdulahi (2006). Allocative efficiency as observed by Prateek (2019) is the level of output where the price of goods or services is equal to the marginal cost of production. In concise terms, it is the degree of equality between the marginal benefit and the marginal cost. The cost of producing one additional unit or items of goods is marginal cost and it is used to explain the optimal economics of scale. On the other hand, the greater enjoyment derives by creating one additional item, is the marginal benefit Loyce & Ishtiaq (2018). One of the powerful means of evaluating manufacturing firms, performance is by accessing its efficiency when consumer pay a market price that reflect marginal cost of production, allocative efficiency had occurred therefore, for a manufacturing firm to be able to produce an output when marginal cost, MC equals price, such firms has efficiently allocate its resources Prateek (2019).

2.7 Empirical Reviews

Chu and Kaliappa (2010) carried out a study on trade liberalization and efficiency of the Vietnamese manufacturing firm. It was revealed that trade liberalization and human capital proxy by skilled workers had a significant positive influence on the manufacturing sector's efficiency. The study also showed that capital-labour ratio had a significant negative influence on the manufacturing sector's efficiency. Faruq and David (2010) investigated the technical efficiency of firms in Ghana using six (6) manufacturing industries for the period of 1991 to 2002. The empirical results from Data Envelopment Analysis (DEA) revealed that the manufacturing companies in Ghana were not technically efficient compare to manufacturing companies in other emerging countries. Similarly, Akpan, Ukoha, Onyenweaku and John (2012) carried out research study on the relationship between efficiency, macroeconomic variables and industrial policy in sugar industry in Nigeria using data from 1970 to 2010. Secondary data obtained from central banks, food industries and sugar farms. The result obtained indicated that efficiencies value was unstable and downward fluctuations at an average value of 50.80% and 49.20% rate of excess technical efficiency. This also means that, official tariff rate on sugar input, real exchange rate capital-labour ratio sales growth and liberalization policy period influenced the sugar technical efficiency. Saibu and Nwosu (2011) investigated the effect of monetary policy on the sectoral output in Nigeria from 1986 to 2008 using auto regression distributed lag model (ARDL)

for the purpose of analysis. Their findings were that, manufacturing sector was not sensitive to any monetary policy variables. This implies that interest rate and exchange rate do not really influence output growth among manufacturing sector of the economy. Similarly, Akpan, Ukoha, Onyenweaku and John (2012) carried out research study on the relationship between efficiency, macroeconomic variables and industrial policy in sugar industry in Nigeria using data from 1970 to 2010. Secondary data obtained from central banks, food industries and sugar farms. The result obtained indicated that efficiencies value was unstable and downward fluctuations at an average value of 50.80% and 49.20% rate of excess technical efficiency. This also means that, official tariff rate on sugar input, real exchange rate capital-labour ratio sales growth and liberalization policy period influenced the sugar technical efficiency. Tafamel and Akrawah (2015) carried out an empirical investigation of the profitability and cost efficiency of oil and gas companies in Nigeria. They made use of nine (9) quoted oil and gas companies in Nigeria for two consecutive years 2012 to 2013 for the empirical analysis. The study adopted the data envelopment analysis to determine the efficiency of the sampled companies. The empirical results showed that Caverton Offshore Plc, Eternal oil and gas, Japaul oil, Mobil oil and Total oil were all efficient under scale efficiency while Oando oil was not efficient under constant return to scale. Orji, Anthony-Orji, Nchege and Okafor (2015) conducted a study on manufacturing output and foreign direct investment in Nigeria. They employed a

linear regression model for the data analysis. The results showed foreign direct investment and manufacturing sector output were negatively related. This, in other words, means that increased FDI inflows into critical sectors would bring about inputs and raw materials needed by the local industries. Osamwonyi and Imafidon (2016) investigated technical efficiency of activities of manufacturing firms on the Nigeria stock exchange in 2016. They adopted oriented DEA statistical technique for the study, which indicated that most manufacturing companies on the exchange are efficient under the variable return to scale with mean value of 85% and 76% efficiency scale. The findings of their result is that thirty one firms out of fifty eight are operating under variable returns to scale and the remaining twenty-seven companies are not operating under variable return to scale. Fadzim, Aziz, Mat and Maamor (2016) carried out a study on the determinants of technical efficiency among smallholder cocoa farmers in Malaysia. They adopted a survey research design through the distribution of structured questionnaires to 375 smallholder cocoa farmers. They found out from the empirical results that record keeping, level of knowledge and status of farmers affect the technical efficiency of the farmers negatively. This therefore implied that the low productivity was due to the continuous fall in percentage share of cocoa output.

3.0 METHODOLOGY

3.1 Research Design

This study used a longitudinal research

design as it aims at studying events or groups over a period of time. This research design looked into the activities of the quoted companies in the manufacturing sector of the Nigerian Stock Exchange for the periods between 2011 and 2015. The choice is premised on the non controllability and manipulability of the independent variable.

Quoted firms listed on the Nigeria Stock Exchange is the population for the study and is made up of one-hundred and eighty-six (186) quoted firms whose shares are quoted on the floor of the Nigerian Stock Exchange. Each firm in the population must have completed its obligation in delivering annual report for five consecutive years (2011 to 2015). The sample size was based on the manufacturing companies in Nigerian Stock Exchange (NSE, 2015). Companies from hotel and tourism, banking, insurance, transportation, media and communication sectors are excluded from the sample population. The justification for excluding these companies was based on the fact that these companies are service-rendering companies, as well as conglomerate companies. Nineteen (19) manufacturing quoted companies were selected for the study.

3.2 Model Specification and Measurement of Variables

The study was subjected to two broad model categories. Model 1 focused on the input-output efficiency of capital and labour using DEA input-oriented CCR model and model 2 focused on the Leontief input-output model.

3.2.1 Model 1: DEA Input-Oriented Charnes, Cooper and Rhodes (CCR) Model

Charnes, Cooper and Rhodes developed data envelopment analysis in 1978. The data envelopment analysis was used to utilize linear programming techniques to extend further Farrell's (1957) single output/single input efficiency measure to multi-output/multi-input case. The central idea of data envelopment analysis is to optimize the ratio of inputs by solving for a group of weight that satisfy a system of linear equation (Rouse, Putterill & Ryan, 1997). This is shown below:

Maximize θ_i
 $\theta_i \lambda_i \dots\dots\dots(3.1)$

Subject to:
 $\theta_i \lambda_i \dots \lambda_{ri} + S_{ri} = 0 \dots\dots\dots(3.2)$

$r = 1 \dots s$ output of manufacturing companies
 $X_{ki} \dots \lambda_j X_{kj} - e_{ki} = \dots\dots\dots(3.3)$

$k = 1 \dots m$ input of manufacturing companies
 $\lambda_j \geq 0, S_{ri} \geq 0, e_{ki} = 0 \dots\dots\dots(3.4)$

$i, j = 1 \dots N$ manufacturing companies in the sample

Where:
 θ = proportional increase in outputs possible;
 S_r = r-th output slack;
 e_{ki} = k-th input slack;
 λ_j = weight or intensity variable used to derive all possible linear combinations of the sample observations.

When the value of θ_i in equation(3.1) is 1, λ_i and $\lambda_i = 0$ for $j \neq i$, the i-th manufacturing company lies on the frontier and is technically efficient.

Furthermore, input and output slacks will always be zero for the efficient manufacturing companies. For the manufacturing Companies, $\theta_i > 1, \lambda_i = 0$, and $\lambda_j = 0$ for $j \neq i$, where j denotes the efficient manufacturing companies in the sample. Inefficient manufacturing companies may also have some positive output or/and input slacks. The output based technical efficiency index of the i-th the companies (Te_j) can be computed as follows:

$$Te_j = \frac{1}{\theta_i} \dots\dots\dots(3.5)$$

The frontier production of the r-th output of i-th manufacturing companies can be computed as follows:

$$X_{ki} = \sum_{j=1}^n \lambda_j y_{rj} = \theta_i y_{ri} + S_{ri} \dots\dots(3.6)$$

Equation (3.6) showed that the projected output consists of two components, one representing the proportional increase in all output ($\theta_i y_{ri}$) and the other accounting for the non-proportional increase or output slack (S_{ri}). Besides estimating the maximum output from fixed inputs, the output-oriented DEA in equation (3.1) also estimated the input slacks (excess inputs) that needed to be conserved for an inefficient manufacturing company to be fully efficient. Mathematically, the projected amount of the k-th resource of the i-th manufacturing companies (x_{ki}) can be expressed as follows:

$$X_{ki} = \sum_{j=1}^n \lambda_j X_{kj} = X_{ri} - e_{ki} \dots\dots\dots(3.7)$$

The DEA model for manufacturing companies is given in equation (3.1) relates to constant returns to scale. According to Banker, Charnes and Cooper (1984: 34) 'the corresponding model under variable returns to the scale (VRS) can be obtained by imposing an additional constraint, $\sum_{j=1} \lambda_j = 1$ on equation (3.3)'. The term 'overall' is the efficiency score obtained from CRS model (TE_{CRS}) while VRS model is 'pure' technical efficiency (TE_{VRS}). Consequently, in general, some companies will show a poorer performance under the CRS model than in the VRS model (i.e., $TE_{VRS} \geq TE_{CRS}$ $\phi_{CRS} \geq \phi_{VRS}$). This relationship is often used to obtain a measure of scale efficiency (SE) as follows:

$$SE = \frac{Te_{CRS}}{Te_{VRS}} = \frac{\phi_{VRS}}{\phi_{CRS}} \dots \dots \dots (3.8)$$

Where,
SE = 1 indicates scale efficiency and SE < 1 indicates output-based scale inefficiency. Scale inefficiency is due to the presence of either increasing (IRS) or decreasing returns to scale (DRS) which can be determined by solving a non-increasing returns to scale (NIRS) DEA model which is obtained by substituting the VRS constraint $\sum_{j=1} \lambda_j = 1$ with $\sum_{j=1} \lambda_j \leq 1$.

Let ϕ_{NIRS} represents the proportional increase in all outputs under the NIRS DEA model. For scale inefficient observations, $\phi_{CRS} = \phi_{NIRS}$ indicates inefficiently small-scale or operation in the region of increasing returns to scale and $\phi_{CRS} < \phi_{NIRS}$ indicates inefficiency large scale or decreasing returns to scale (Fare, Grosskopf & Lovell, 1994).

3.2.2 Model 2: Leontief Input-Output Model

Wassily Leontief developed input-output model to examine the inflows and outflows of goods and services in a tabular form. This model investigated the inputs, i.e. purchase and output (sales), across the different sectors of an economy for a given period. The production sector utilizes outputs of the sector and in other production activities and subsequently the final consumers (such as government, households and nations)

In a table format by Leontief, X_i is the gross output of the i th sector, X_{ij} represents the amount of the i th sector's output used by the j th sector to produce its output, and X_j is the final consumers' use of the i th sector's output. The inputs are, labour, W , and capital, R is described in the bottom rows of the table. W_i , represents the use of labour in the production of i th product, W is the use of labour by final consumers, R_i is the use of capital in the production of other goods, and R is the final demand for capital.

The rows of the table describe the total amount of a product or primary input to all uses, both intermediate and final. For example, suppose sector 1 represents food products, then the first row tells us that, out of a gross output of X tons of food products, an amount $X \dots$ is used in the production of food products themselves, an amount of $X \dots$ must be delivered to sector 2, X_i tons are delivered to sector i , X_n to sector n , and X tons are consumed by final end users of food products. The columns of the table describe the input

requirements to produce the gross output totals. Thus, producing the X_i tons of food products requires X_{ij} tons of food products, along with X_{in} units of output from sector n (steel, perhaps), X_{ii} from sector i , X_{in} from sector n , W_i hours of labour, and R_i naira of capital.

The model overall considers the n sectors or industries, two primary factors of production (capital and labour), and initially four types of final demand (personal consumption expenditures, C ; investment expenditures, I ; government purchases of goods and services, G ; and exports, E).

For example, the total demand for the output of sector i , that is, the allocation of the output of the i th sector can be written as

$$X_i = \sum_{j=1}^n X_{ij} + F_i \quad (3.9)$$

Where;

$\sum_{j=1}^n X_{ij}$ = the total inter-industry demand for the output of sector i , or sales by sector i to the n sectors and F_i = the total final demand for the output of sector i .

$$F_i = C_i + I_i + G_i + E_i \quad (3.10)$$

3.3 Method of Data Analysis

The study used Data Envelopment Analysis (DEA) application to explain the Leontief input-output model. The performance efficiency scores of selected manufacturing companies in Nigeria were computed by the DEA and the DEA Frontier Software.

4.0 DATA PRESENTATION AND ANALYSIS OF RESULTS

In line with the discussion above, the study presented the DEA analysis for CRS, VRS and SCALE efficiency for the Leontief input-output relationship. Secondly, the study provided the descriptive statistics and correlation matrix for input-output variables. The manufacturing performance efficiency scores that were generated from the DEA methodology were based on the three efficiency measures; (1) DEA Overall technical efficiency score (CRS): This was obtained when the study assumed a constant return to scale for all the manufacturing companies in the sample. This implies that an increase input by 1% would lead to a corresponding 1% increase in its output. This did not consider however the company's management skills in converting small inputs to large outputs; (2) DEA pure technical efficiency score (VRS): This was obtained when the study assumed a variable return to scale for all the sampled manufacturing companies. This implied increase in the manufacturing companies input by 1% would lead to more than 1% increase in its output; (3) Scale efficiency score (SCALE): This is the ratio of constant return to scale to variable return to scale (CRSE/VRSE). This focused on measuring the extent to which management accounting skill was relevant in converting small inputs to large outputs and all these measures. In all three measures of the input-output relationship (efficiency) the rule is that a company is classified as efficient when it has a score of "1" and inefficient when it has a score less than "1".

4.1 CRS Efficiency Performance Measurement

The DEA overall technical efficiency score (CRS) was obtained when the study assumed a constant return to scale for the manufacturing companies. This implied that an increase in input by 1% would lead to a 1% increase in its output. This did not consider management skills in converting small inputs to large outputs. This study was evaluated for a five year (2011-2015)

efficiency score of 19 manufacturing companies in Nigeria. The results obtained are presented as follows: The overall technical efficiency score (i.e. technical efficiency relative to the CRS DEA model) for each of the sampled companies is presented in Table 1. The CRS DEA model was based on the assumption of constant return to scale for the companies. (See Appendix I for the full CRS efficiency result).

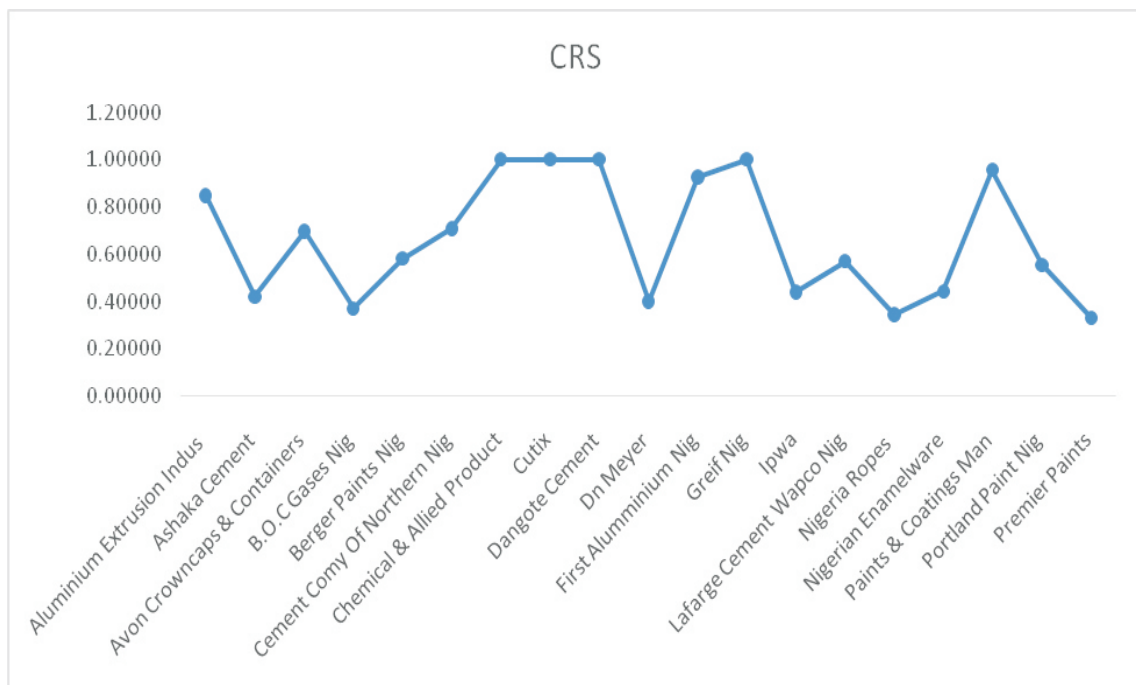
Table 1: 2011-2015 Technical efficiency scores based on CRS DEA model

DMU No.	DMU Name	Input-Oriented CRS Efficiency
	DMU	0.00000
1	Aluminium Extrusion Indus	0.84707
2	Ashaka Cement	0.42019
3	Avon Crowncaps & Containers	0.69686
4	B.O.C Gases Nig	0.36878
5	Berger Paints Nig	0.58107
6	Cement Com Of Northern Nig	0.70702
7	Chemical & Allied Product	1.00000
8	Cutix	1.00000
9	Dangote Cement	1.00000
10	Dn Meyer	0.39955
11	First Alumminium Nig	0.92610
12	Greif Nig	1.00000
13	Ipwa	0.44023
14	Lafarge Cement Wapco Nig	0.56920
15	Nigeria Ropes	0.34547
16	Nigerian Enamelware	0.44181
17	Paints & Coatings Man	0.95623
18	Portland Paint Nig	0.55527
19	Premier Paints	0.33156

Source: Author's Computation (2016)

In Table 1, the study found out that on the basis of the five years the constant return to scale (CRS) technical efficiency scores of the 19 manufacturing companies selected, only Chemical and Allied Product (CAP), Cutix, Dangote Cement and Greif were efficient under constant return to scale (CRS) after taking five years average inputs and outputs to sustain its efficiency within the period. This implied that these

four listed companies are more efficient while the other 15 (fifteen) were not efficient under the theory of constant return to scale in the period under investigation. The efficiency analysis result implied that the four companies have 100% efficiency scale while others have less than 100%. The graph below represents further explanation of the result:



VRS DEA Results

The DEA models were involved in examining the Leontief input-output relationship (efficiency) of manufacturing companies in Nigeria using DEA Frontier software. Table 4.2.2. indicated the overall

technical efficiency of the manufacturing process. The variable return to scale (VRS) DEA model was based on the assumption of variable return to scale. (See appendix I for the VRS efficiency result).

Table 2: 2011-2015 Technical efficiency scores based on VRS DEA model

<i>DMU No.</i>	<i>DMU Name</i>	<i>Input-Oriented VRS Efficiency</i>
	DMU	0.00000
1	Aluminium Extrusion Indus	0.84707
2	Ashaka Cement	0.47066
3	Avon Crowncaps & Containers	1.00000
4	B.O.C Gases Nig	0.37743
5	Berger Paints Nig	0.60527
6	Cement Com Of Northern Nig	1.00000
7	Chemical & Allied Product	1.00000
8	Cutix	1.00000
9	Dangote Cement	1.00000
10	Dn Meyer	0.39955
11	First Alumminium Nig	1.00000
12	Greif Nig	1.00000
13	Ipwa	0.44023
14	Lafarge Cement Wapco Nig	1.00000
15	Nigeria Ropes	0.34547
16	Nigerian Enamelware	0.44265
17	Paints & Coatings Man	0.95683
18	Portland Paint Nig	0.55634
19	Premier Paints	0.33156

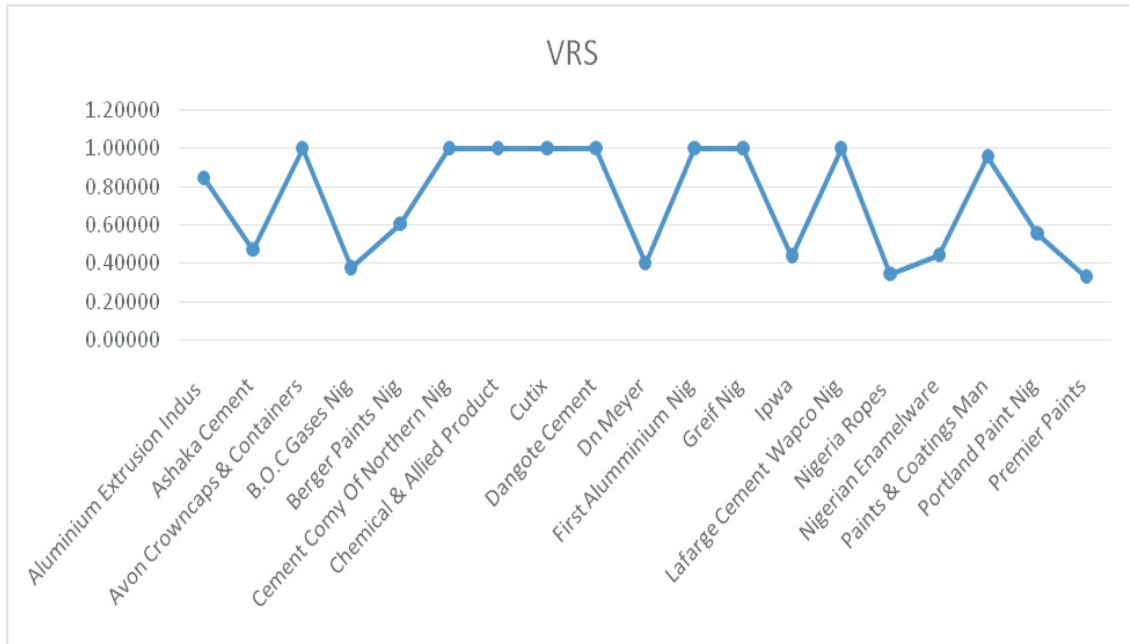
Source: Author's Computation (2016)

Table 2, shows that the variable return to scale technical efficiency scores of the sampled manufacturing companies for the period of 2011 to 2015 has Avon Crowncap and Containers, Cement Company of Northern Nigeria, Chemical and Allied Product, Cutix, Dangote Cement, First Aluminum Nigeria, Greif and Lafarge cement passing the efficiency

test for the period. These eight (8) quoted companies were effective in managing their capital and labour inputs to produce outputs in an efficient manner. This showed that only eight (8) companies were efficient under variable return to scale while the remaining eleven (11) companies were not efficient under variable return to scale. This in other words means that the 8

quoted companies out of the 19 quoted companies had a variable return to scale efficiency scores of 100% while 11 quoted companies had a variable return to scale

efficiency score of less than 100%. The result was also presented graphically as shown below;



Scale DEA Results

The overall technical efficiency score (i.e. technical efficiency relative to the scale efficiency DEA model) for each of the 19 manufacturing companies is presented in

Table 3. The scale efficiency DEA model was tougher efficiency test which was based on constant returns to scale and variable returns to scale.

Table 3: The Scale Efficiency DEA

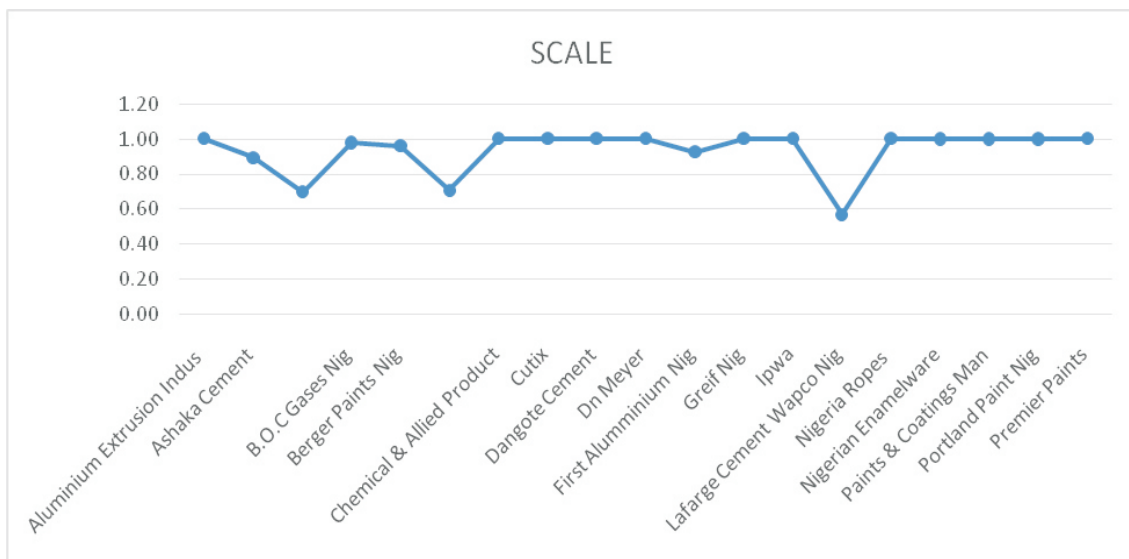
DMU	SCALE
Aluminium Extrusion Indus	1.00
Ashaka Cement	0.89
Avon Crowncaps & Containers	0.70
B.O.C Gases Nig	0.98
Berger Paints Nig	0.96
Cement Com Of Northern Nig	0.71
Chemical & Allied Product	1.00

Cutix	1.00
Dangote Cement	1.00
Dn Meyer	1.00
First Alumminium Nig	0.93
Greif Nig	1.00
Ipwa	1.00
Lafarge Cement Wapco Nig	0.57
Nigeria Ropes	1.00
Nigerian Enamelware	1.00
Paints & Coatings Man	1.00
Portland Paint Nig	1.00
Premier Paints	1.00

Source: Author's Computation (2016)

Table 3, reveals that Aluminium Extrusion Industries, Chemical and Allied Product, Cutix, Dangote Cement, Dn Meyer, Greif Nigeria, Ipwa, Nigeria Ropes, Nigerian Enamelware, Paints and Coatings Manufacturers, Portland Paints and Premier Paints are scale efficient among the 19 quoted manufacturing companies sampled for the period while the remaining

seven (7) companies are not scale efficient. This means that twelve (12) manufacturing companies among the sampled companies show consistent sign of strength. Its scale efficiency score showed that apart from being strong in utilizing capital and labour more efficiently in the manufacturing sector, with good managerial skills the quoted companies had scale efficiency scores of 100%. Thus illustrated graphically as shown below;



Overall DEA Results

Above all, the overall result for technical and scale efficiency score for the 19 listed

companies examined between 2011 and 2015 are in table 4.

Table 4: Technical and Scale Efficiency Scores of Quoted Manufacturing Companies in Nigeria (2011-2015)

S/N	DMU	CRS	VRS	SCALE	REMARK
1	Aluminium Extrusion Indus	0.84707	0.84707	1.00	CRS
2	Ashaka Cement	0.42019	0.47066	0.89	IRS
3	Avon Crowncaps & Containers	0.69686	1.00000	0.70	DRS
4	B.O.C Gases Nig	0.36878	0.37743	0.98	IRS
5	Berger Paints Nig	0.58107	0.60527	0.96	IRS
6	Cement Com Of Northern Nig	0.70702	1.00000	0.71	DRS
7	Chemical & Allied Product	1.00000	1.00000	1.00	CRS
8	Cutix	1.00000	1.00000	1.00	CRS
9	Dangote Cement	1.00000	1.00000	1.00	CRS
10	Dn Meyer	0.39955	0.39955	1.00	CRS
11	First Alumminium Nig	0.92610	1.00000	0.93	DRS
12	Greif Nig	1.00000	1.00000	1.00	CRS
13	Ipwa	0.44023	0.44023	1.00	CRS
14	Lafarge Cement Wapco Nig	0.56920	1.00000	0.57	DRS
15	Nigeria Ropes	0.34547	0.34547	1.00	CRS
16	Nigerian Enamelware	0.44181	0.44265	1.00	CRS
17	Paints & Coatings Man	0.95623	0.95683	1.00	CRS
18	Portland Paint Nig	0.55527	0.55634	1.00	CRS
19	Premier Paints	0.33156	0.33156	1.00	CRS
	Mean	0.66244	0.72490	0.93287	

Source: Author's Computation (2016)

Table 4 has the scores for the technical and efficiency scale of listed companies on the Nigeria stock exchange. On the overall, the sample mean was 72% for the listed firms and 93% efficiency scale, which indicated that most manufacturing firms are operating under variable returns and scale

efficiency. The result from the Table further confirms that eight listed companies out of the examined companies are technically efficient while eleven are technically inefficient. This is due to the fact any score below 100% is technically efficient under the variable return to scale

assumptions. It was obvious from the Table that Premier paints with 33% and B.O.C Gases with (98%) efficiency score are technically inefficient and they required 67% and 2% respectively to scale down to become more technically efficient and produce the same level of output because of decreasing return to scale. Conclusively, 63% of the listed firms had most productive scale size while 37% are inefficient. Based on the results interdependence exists among the sampled companies and thus, nineteen companies operated on the production possibility frontiers while the other twelve firms operated on the constant return to scale. There were exceptions for Aluminum Extrusion Industries, Dn Meyer, Ipwa, Nigerian Enamelware, Nigerian Ropes, Paints and Coatings Manufacturers, Portland Paints and Premier Paints exhibited constant return to scale despite the fact of being technically inefficient. This showed that they operated at their most productive scale size while the remaining four quoted companies exhibited decreasing return to scale, which means that the input factors were over-employed despite the fact that they were efficient. Furthermore, the result revealed that four firms sampled were operating on the decreasing return to scale (DRS) which implied that changing all the inputs by the same rate brings about a smaller change in output, while other three were operating on increasing return to scale (IRS) which implied that changing all inputs by the same rate brings about the same results in outputs. The implication is that the firms must increase the quantity of their factor inputs used in production. Inefficiency in

other firms can be attributed to factor inputs not being enough thus the need to introduce factor inputs becomes necessary. The solution to the inefficiency is for firms to carry out activities in the most productive scale on the decreasing return to scale while developing strategy to operate on the increasing return to scale is increase input consumption and expansion of output to achieve productive scale size.

4.2 Discussion of Findings

The analysis of data shows that the mean value of the sampled listed companies is 72%, which indicates technical efficiency under variable return to scale and 93% value for scale. The value further explained that listed firms sampled on the Stock Exchange are relatively efficient and there is level of interdependence among these companies in Nigeria. The result of the study is in consonance with the findings of Osamwonyi and Imafidon (2016) that listed companies in Nigeria are efficient under variable return to scale, with the mean score of 85% and scale efficiency mean score of 76%. The study therefore rejects the null hypothesis, that there is no interdependence among industries in the Nigerian manufacturing sector. The empirical result indicates that increase in the inputs is expected to also increase the level of outputs. This means that there is a relationship between inputs and outputs. The result of this study is in consonance with the finding of Kwadwo (2016) that there is a significant positive relationship between raw materials inventory management and profitability of manufacturing firms. The study therefore rejects the null hypothesis that the input-

output relationship of the manufacturing sector in Nigeria is not significantly related. The result reveals that Chemical and Allied Product (CAP), Cutix, Dangote Cement and Greif were efficient under constant return to scale (CRS) after taking five years average inputs and outputs to sustain its efficiency within the period. The result of the study is in consonance with the findings of Osamwonyi and Imafidon (2016) that the efficient level of these companies with mean values of 85% and scale efficiency of 76% indicates that these sampled firms are efficient under variable return to scale. The thirty-one companies out of the fifty-eight companies selected for the study are operating under variable return to scale and the remaining twenty-seven companies are not operating under variable return to scale. The findings of Adewuyi (2006) supported the findings that the nominal protection rate and import penetration ratio have a significant positive influence on the technical efficiency of the manufacturing sector. The findings of Faruq and David (2010) in Ghana are contrary to the finding that manufacturing companies in Ghana were not technically efficient and less significant to other manufacturing companies in other emerging countries. The study therefore rejects the null hypothesis that the manufacturing sector in Nigeria is not technically efficient. The empirical result shows that Aluminium Extrusion Industries, Chemical and Allied Product, Cutix, Dangote Cement, Dn Meyer, Greif Nigeria, Ipwa, Nigeria Ropes, Nigerian Enamelware, Paints and Coatings Manufacturers, Portland Paints and Premier Paints are scale efficient among

the 19 manufacturing companies sampled. While the remaining seven (7) companies, are not scale efficient. The study is consistent with the findings of Osamwonyi and Imafidon (2016) that manufacturing quoted companies in Nigeria selected for the study are operating under variable return to scale. The study therefore rejects the null hypothesis that the manufacturing sector in Nigeria is not scale efficient.

5.0 CONCLUSION AND RECOMMENDATIONS

The study analysed the Leontief input-output relationship of manufacturing companies in Nigeria. The Nigeria manufacturing sector is characterized by large number of firms producing identical products based on the production function. The input-output analysis is based on efficiency which is the relationship between output of goods and services and the input resources that is, human and capital resources available in the production processes. The empirical results showed the mean of the quoted company technical efficiency under variable return to scale score of 72% and a scale efficiency score of 93%. This shows that the Nigerian quoted manufacturing companies are relatively efficient under variable return to scale and scale efficiency which signify that there is interdependence among the quoted manufacturing companies in Nigeria. The empirical result showed that increase in the inputs is expected to also increase the level of outputs. This means that there is a relationship between inputs and outputs, Chemical and Allied Product (CAP), Cutix, Dangote Cement and Greif were

efficient under constant return to scale (CRS) after taking five years average inputs and outputs to sustain its efficiency within the period. Aluminium Extrusion Industries, Chemical and Allied Product, Cutix, Dangote Cement, Dn Meyer, Greif Nigeria, Ipwa, Nigeria Ropes, Nigerian Enamelware, Paints and Coatings Manufacturers, Portland Paints and Premier Paints are scale efficient among the 19 manufacturing companies sampled while the remaining seven (7) companies are not scale efficient. The correlation matrix result shows that the inputs and outputs in our study are near perfect correlated. This is expected since increase in the inputs is expected to also increase the level of out puts. The empirical result from this study is useful for policy formulation, implementation and recommendation. From the empirical findings, we recommend that:

- (i) Management and concerned authorities of the manufacturing companies in Nigeria should ensure that the manufacturing sector is technically efficient. This could be achieved by using adequate input in terms of factors

of production so as to maximize output

- (ii) Quoted manufacturing companies should increase the quantity of factors input employment so as to enjoy technical and scale productive efficiency.
- (iii) The efficient listed companies should merge with the inefficient quoted manufacturing companies in order to enjoy economies of large- scale production in the same manufacturing sector in Nigeria.
- (iv) The study also recommends that the government should provide an enabling platform for the inefficient manufacturing companies by formulating policies favourable in term of tax relief and holiday for productive efficiency of the sector. Strict control measures should be put in place by the government to check and reduce smuggling activities and excess importation of input materials from foreign countries. This is to encourage the use of locally source materials for manufacturing.

REFERENCES

- Adeloye, L. (2010). Hash operating claims 834 Nigerian manufacturing companies. *The Punch* 7 March Online <http://www.jangola/index.php>.
- Adenikinju, A. & Alaba, O. (2000). Energy use and productivity performance in the Nigerian manufacturing sector. *Centre for econometric and allied research, department of economics; University of Ibadan*.
- Adeola, F. A. (2011). Productivity performance in developing countries: Case study of Nigeria. *United Nations Industrial Developing Organization (UNIDO) Report*.
- Akinmulegun, S. O. & Oluwole, F. O. (2013). An assessment of the Nigerian manufacturing sector in the era of globalization. *American Journal of Social and Management Sciences*, 5 (1), 27-32.
- Akpan, S. B., Ukoha, O. O., Onyenweaku, C. & John, D. E. (2012). Empirical relationship among technical efficiency, macroeconomic variables and industrial policy regimes: A case study of sugar industry in Nigeria. *International Journal of Economics and Management Sciences*, 1 (10), 1-11.
- Ark B. F. (2007). Europeans must stop choosing between employment and productivity growth. Retrieved August 15 20015 from www.euklems.net
- Banker, R. D. & Datar, S. M. (1987). Accounting for labour productivity in manufacturing in operations: An application in field studies in management accounting and control, W. Brans and R. Kalan (eds.), (Cambridge, Mass: *Harvard Business School Press, forthcoming*.
- Banker, R. D., Charnes, A. & Cooper, W. W. (1984). Some models for the estimation of technical and scale inefficiencies in Data Envelopment Analysis. *Management Science* 30, 1078–1092.
- Benjamin C. Asogwa, Joseph C. Umeh & Simon T. Pender (2017). An analysis of Economic Efficiency of Nigeria Small Scale Farmers: A parametric Frontier Approach. *Journal of Economics*. Volume 2 (89–98).
- Bdour, J. I. & Al-khoury, A. F. (2008). Predicting change in bank efficiency in Jordan: A data envelopment analysis. *Journal of Accounting and Organizational Change*, 4 (2), 162-181.
- Blanchard, J. M. F. & Ripsman, N. M. (1996). *Measuring economic interdependence: A geopolitical perspective". Geopolitics and International Boundaries*. 1 (3), 225–246.
- Charnes, A. Cooper, W. W, Lewin, A. & Seiford, L. (1994). *Data envelopment analysis: Theory, methodology, and applications*. Boston: Kluwer Academic Publishers.
- Charnes, A., Cooper, W. W. & Rhodes, E. L. (1978). Measuring the efficiency of decision making units. *European Journal of Operational Research*, 2

- (6), 429–444.
- Chima, O. B. (2012). The environment of the manufacturing sector in Nigeria; Strategies towards vision 20:2020. *Journal of International Business and Management*, 5 (1), 67-74.
- Chu, S. & Kaliappa, K. (2010). Impact of trade liberalization on technical efficiency of Vietnamese manufacturing firms. *Paper presented at the conference on frontier*.
- Dickson, D. A. (2010). The recent trends and patterns in Nigeria's industrial development: *Council for the Development of Social Science Research in Africa*.
- Dietzenbacher, E. & Michael, L. L. (2004). *Wassily Leontieff and input-output economics*. Cambridge University Press.
- Dipak, M. & Ata, M. (2003). *The African manufacturing firm, an analysis based on firm studies in Sub-Saharan Africa*. Taylor and Francis Ltd.
- Elhiraika, A. (2008). Promoting manufacturing to accelerate economic growth and reduce volatility in Africa. *African Economic Conference*.
- Eze, O. R. & Ogiji, F. O. (2013). Impact of fiscal policy on the manufacturing sector output in Nigeria: An Error Correction Analysis. *International Journal of Business and Management Review*, 1 (3), 35-55.
- Fadzim, W. R, Aziz, M. I. A., Mat, S. H. & Maamor, S. (2016). Determinants technical efficiency among smallholder cocoa farmers in Malaysia. The European Proceedings of Social and Behavioural Sciences. *International Soft Science Conference*, 689-692.
- Fare, R., Grosskopf, S. & Lovell, C. A. K. (1994). *Production frontiers*. Cambridge University Press.
- Farrell, M. J. (1957). The measurement of productive efficiency. *Journal of the Royal Statistical Society. Series A (General)*, 120 (3), 253–290.
- Faruq, H, A. & David, T. Y. (2010). The Determinants of technical efficiency of manufacturing firms in Ghana. *Global Economy Journal*, 10 (3).
- Hollingsworth, B. & Parkin, D. (1998). Developing efficiency measures for use in the NHS. A report to the NHS executive Northern & Yorkshire R&D Directorate, Health Economics Group, *University of Newcastle*.
- Hossain, M. A. & Karunakara, N. D. (2004). Trade liberalization and technical efficiency: Evidence from Bangladesh Manufacturing Industries: *The Journal of Development Studies*, 49, 17-44.
- Hung, T., Thanh, L. & Barry, R. (2009). Technical efficiency in the Vietnamese manufacturing sector. *Journal of International Development*, 22 (4), 503-520.
- Kirkley, J., Fare, R, Grosskopf, S., McConnell, K., Strand, I. & D. Squires, D. (2000). Assessing capacity in fisheries when data are limited. *North American Journal of Fisheries Management* (in review).
- Kwadwo, B. P. (2016). The impact of

- efficient inventory management on profitability: Evidence from selected manufacturing firms in Ghana, *International Journal of Finance and Accounting*, 5 (1), 22-26.
- Leontief, W. (1966). *Input-output economics*, New York: Oxford University.
- Libanio, G. (2006). Manufacturing industry and economic growth in Latin America: A Kaldorian approach' Ms., CEDEPLAR, Federal University of Minas, Gerais, Brazil.
- Loto, M.A. (2012). Global economic downturn and the manufacturing sector performance in the Nigeria economy. *Journals of Emerging Trends in Economics and Management Sciences*, 3 (1), 38-45.
- Lovell, C. A. K. (1993). *Production frontier and productive efficiency*. In Harold O. Fried, C.A. Knox Lovell, and Shelton S. Schmidt, editions. *The measurement of productive efficiency. techniques and applications*, Oxford: Oxford University Press, 3-67.
- Loyce Chilimsung & Abeenish Tiaq (2018) Improving Allocative efficiency and budgets execution for family planning in Sub-Sahara Africa (USAIB).
- Malik, A., Teal, F. & Baptist, S. (204). *The performance of Nigerian manufacturing firms: report on the Nigerian manufacturing enterprise survey*. Centre for the study of African economies. University of Oxford.
- McGranahan, D. (2000). The geography of new manufacturing technology: Implications for the nonmetropolitan south. *Southern Rural Sociology* 15, 84-103.
- Miller, R., Karen, R., Polenske, G. & Adam, Z. (1989). *Rose Frontiers of Input-Output Analysis*, New York: Oxford University Press.
- Mokhtar, H. S. A., Alhabshi, S. M. & Abdullah, N. (2006). Determinants of Islamic banking efficiency in Malaysia. *UNITARE-Journal*, 2 (2).
- Nancy, J. W. (1992). Kaldor's growth theory. *Journal of the History of Economic Thought*, 14, 36- 54.
- Nor, H. H. & Mohammed, S. I. (2014). Analysis of the production theory for manufacturing industry and construction in Malaysia: Proceeding of the global summit on education GSE Kuala Lumpur, Malaysia. Online retrieved. World Conference.com
- Ogundari, K., Ojo, S. O. & Ajibefun, I. A. (2006). Economies of scale and cost efficiency in small scale maize production: Empirical Evidence from Nigeria. *Journal of Social Sciences*, 13(2), 131-136.
- Okemini, E. B. & Uranta, D. T. (2008). Poverty and criminality in the Niger-Delta region: A critical analysis. *Integrated Social and Management Journal*, 1(2), 1-8.
- Okwo, I. M. & Ugwunta, D. O. (2012). Impact of firms input cost on firm profitability: Evaluation of the Nigeria brewery industry. *Research Journal of Finance and Accounting*, 3 (6).
- Olorunfemi, S., Tomola, M. O., Felix, O.

- A. & Ogunleye E. O. (2013). Manufacturing performance in Nigeria: Implication for sustainable development. *Asian Economic and Financial Review*, 3 (9), 195-1213.
- Omolehinwa, O. E. (2000). Coping with cost accounting: Pumark Nigeria Limited, Lagos.
- Orji, A, Anthony-Orji, O.I, Nchege, J. & Okafor, J (2015). *Manufacturing output and foreign direct investment in Nigeria. A new evidence. International Journal of Academic Research in Economics and Management Sciences*, 4(3), 16-27.
- Osamwonyi, I. O. & Imafidon, K. (2016). The technique to examine the technical efficiency of manufacturing companies on the Nigerian stock exchange. *Journal of Applied & Banking*, 6 (1), 127-138.
- Osuagwu, M. (2004). Relationship marketing strategies in Nigerian companies, *The Marketing Management Journal*, 14(2), 114-128.
- Pateek Agraval (2019) Allocative Efficiency: Intelligent Economist (www.intelligenteconomist.com).
- Rouse, P., Putterill, M. & Ryan, D. (1997). Towards a general managerial framework for performance measurement: A comprehensive highway maintenance application, *Journal of Productivity Analysis*, 8, 127-149.
- Saibu, M. O. & Nwosa, L. P., (2011). Effects of monetary policy on sectoral output growth in Nigeria (1986-2008). *Journal of Economics and Behavioural Studies*, 2(6):245-254.
- Sharma, S. C. (1999). *Production management*, Published by Romesh Chander Khanna, 2-B, Nath Market, Delhi: *Nai Sarak*.
- Sofoluwe, A. O. (2000). *Issues in measuring teacher productivity*. Ilorin: Haytee Press and Publishing Company Limited.
- Tafamel, E. A. & Akrawah, O. D. (2015). *Cost efficiency of the oil and gas industry in Nigeria*. Data envelopment analysis. *Archives of Business Research*, 3 (6), 138-148.
- UN, (2015). DESA office for economic and social council support and coordination. www.un.org. Retrieved 2015.
- Vanish, K., Rajesh S. Ray, N. & Kural, S. (2013). Productivity measurement in Indian Manufacturing: A comparison of alternative method. *Journal of Quantitative economics*, 1(182).
- Wachukwu, C. (2013). Federal Government earns 179b naira from non oil sector. *Sun newspaper of Tuesday 14th May, 27*.

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ABSTRACT

The main objective of this study is to examine the differences in performance between gifted and average students in the Faculty of Management Sciences, University of Jos. A survey research design was adopted for this study. The total population for the study was 1,122. The Participants comprised undergraduate students in the Faculty selected based on their results which are reflected implicitly in their CGPAs as provided checked by their level coordinators. Multivariate analysis of variance was conducted, using General Linear Models (GLM) with SPSS 21, to find out whether the (combination of) the five factors differ between gifted and average students, which was the central position of this study. The independent variables were high reasoning ability, creativity, curiosity, large vocabulary and excellent memory, while the dependent variable is gifted. The results of the evaluation of normality, linearity and multicollinearity were satisfactory. The study recommended that gifted students are significantly different from averaged students in terms of the combined and separate variables. Therefore they need to be encouraged more in identification of their giftedness skill to continue to perform better and become reasonable students that will make the Faculty proud. The study also recommends that since the characteristics were significant on the average students they need to belong to an 'elite' group to spend more extra time on studies.

Keywords: Gifted students, Average Students, performance, Faculty of Management Sciences, General Linear Models (GLM)

1.0 INTRODUCTION

Over a decade now, it is believed that Nigeria educational sector needs urgent attention and implementation of necessary reforms that will bring sanity, hope and total turnaround of the sector from the old ways it used to be. One of the aspects of the sector that requires urgent attention is the issue of students' academic performance admission process into higher institutions after completion of secondary school.

The Faculty of Management Sciences students are drawn from a wide range of social backgrounds and characteristics which include high reasoning ability, creativity, curiosity, large vocabulary and excellent memory and they are primarily differentiated between gifted and average students. These attributes give them different life experiences, different educational opportunities, expectations, needs and varied academic potentials (Fraser and Killen 2003 in Nyikahadzoi, Matamande, Taderera and Mandimika, 2013). This study empirically tries to determine the performance of gifted students against their counterparts, average students to know which is better. Access to various characteristics of individual student is found to be positively associated with academic performance in previous studies (Betts, Julian and Morell, 1998). The identification of gifted students remains a controversial issue in gifted education (Feldhusen & Jarwan, 2000; Hany, 1993; Heller & Feldhusen, 1986; Jarwan & Asher, 1994 cited in Pryor, 2004). In addition to lack of agreement about the nature of giftedness, the practical issue of how to implement an identification

system that combines multiple sources of information is a source of debate. In many instances operationalization of giftedness is legislated. Influential variables with averaged students had revealed that they needed more time and effort while gifted students are naturally intelligent. However, the assertion is left to be proven.

Consequently, this study intends to examine the performance of gifted students and average students in the Faculty of Management Sciences University of Jos. The research questions for the study are; do gifted students differ from average students in Faculty of Management Sciences? Which of these characteristics (high reasoning ability, creativity, curiosity, large vocabulary and excellent memory) primarily differentiate between gifted students and average students? The main objective of this study is to determine gifted and average students' performance in Faculty of Management sciences, University of Jos. Other specific objectives of this study are to; determine whether performance of gifted students differ from average student's in Faculty of Management Sciences; evaluate the characteristics (high reasoning ability, creativity, curiosity, large vocabulary, and excellent memory) between gifted students and average students in Faculty of Management Sciences.

Research Question

1. Does gifted students academic performance differ from average students in the faculty of management sciences, University of Jos?

2. Does high reasoning ability, creativity, curiosity, large vocabulary and excellent memory does not primarily differentiate between gifted students and average students?

Research Objective

1. To find out whether gifted students academic performance differ from average students in the faculty of management sciences, University of Jos.
2. To seek whether high reasoning ability, creativity, curiosity, large vocabulary and excellent memory does not primarily differentiate between gifted students and average students.

Research Hypotheses

- i. Gifted students do not differ from average students in Faculty of Management Sciences, University of Jos
- ii. High reasoning ability, creativity, curiosity, large vocabulary and excellent memory does not primarily differentiate between gifted students and average students.

2.0 LITERATURE REVIEW

2.1 Conceptual Review

A seminal article in the gifted education literature is Pagnato & Birch's (1959) cited in Pyryt (2004) report of the effectiveness of screening approaches in gifted education, which was based on Pagnato's (1958) dissertation. Pagnato & Birch (1959) introduced the concepts of "effectiveness" and "efficiency" of screening procedures for identifying gifted children. In the context of a school system, the effectiveness of a screening procedure is the ratio of students identified

by a procedure to the total number of gifted students in the school system. Unless a school system administers the criterion measure to all of the students in the school system, the number of identified gifted students becomes the estimate for the total.

Blaženka and Dijana (2012) A two-group discriminant analysis was applied, with the first group consisting of more successful students at the Faculty of Organization and Informatics, and the second group consisting of less successful students at the Faculty of Organization and Informatics. On the basis of variables Year of enrolment at the Faculty, Current grade average and Number of exams to be passed, the students were divided into two groups: the more successful students and the less successful ones.

High intellectual ability as a consistent interaction between three basic human traits that characterize high-ability people: (a) above-average general intelligence; (b) creativity (defined as "that cluster of traits that encompasses curiosity, originality, ingenuity, and a willingness to challenge convention and tradition"; and (c) task commitment (which "represents a non-intellectual cluster of traits found consistently in creative and productive individuals, including perseverance, determination, will power or positive energy") (Renzulli, 2012 cited in Fernandez, Garcia, Arias-Gundin, Vazquez and Rodriguez, 2017). The concern for the predictive ability of the linear discriminant function has obscured and even confused the fact that two sets of techniques based on the purpose of

analysis exist, i.e., predictive discriminant analysis (PDA) and descriptive discriminant analysis (DDA) (Erimafa, Iduseri, and Edokpa, 2009).

2.2 Empirical Review

Researchers have used discriminant analysis in a wide variety of settings. Ideas associated with discriminant analysis can be traced back to the 1920's through the work completed by English statistician Karl Pearson (1857 - 1936), who translated multivariate to aid in inter group discrimination (Anderson, 1996). Since then, discriminant analysis has been applied to a wide variety of discipline, for example, earlier application to financial ratio analysis to make predictions of company bankruptcy (Altman, 1968). Researchers like Deakin (1972), Johnson (1970) and Lennox (1999) also used the techniques to determine the factor responsible for a company's bankruptcy. Wong and Holt (2003) applied discriminant analysis to develop a contractor classification model that linked client evaluation aspirations with contractor potential performance in the construction industry. Sharma and Palawal (2006) used a rational linear discriminant analysis to identify linear transformation orientation that best project the feature vectors to a subspace in such a way that the overlapping between the different subspaces classes is minimum. Discriminant analysis is concerned with problem of assigning an unknown observation to a group with low error rate, therefore the basic idea of discriminant analysis is the designing of a rule or function which will determine whether group differ with regard to the mean of a

variable and to use that variable to predict group membership of new cases. The design of such a rule is called discriminant function analysis.

Jean and Judy (2016) did a research on sex determination using discriminant analysis. A large sample (370 in size) of central California prehistoric skeletal remains was analyzed for sexual dimorphism of long bones using nine femoral and nine humeral dimensions' sex of all individuals. This was assessed using traits of the Os pubis. Discriminant analysis was done separately for the robust fairly Horizon sample and the middle/late Horizon sample. Discriminant analysis was performed on all the initial predictor factors (variables) and later a combination of some of the factors. The analysis revealed that use of multiple variables did not produce appreciably better results over the use of the best variables analyzed singly. The discriminant analysis, therefore, served as a data reduction technique and succeeded in reducing the initial variables (9 in number) to only a few remaining factors being the diameter of femoral head, femoral bicondylar width and diameter of the human head (transverse or vertical). These variables produced excellent separation of the sexes with about 90% accuracy. The difference between Jean and Judy's research work and the current work are that Jeans' work focused on determination of sex (i.e. male or female) of: Prehistoric skeletal remains while the current work concentrates on determination of the performance (i.e. pass or fail) of a student in a final examination; Jean and Judy compared the discriminant function score on an individual with a standardized discriminant index to

identify the sex of the individual while this research work did not only compare the discriminant function score on an individual with a discriminant index but also compared the classification functions scores on the individual to determine the performance of an individual in examination. The similarities in the two-research works are that; The multivariate techniques used in both cases managed to reduce the initial several possible predictor variables to only a few "best" influential factors which were sufficient in giving reliable results. Both the discriminant function and the classification functions are linear combinations of the predictor variables and are both multivariate technique of discriminant analysis.

Thomas, E. W., Marr, J. M., Thomas, A., Hume, R. M. and Walker, N. (1996) did a research work on "using discriminant analysis to identify students at risk" in designing any educational intervention one often needs to determine what factors are related to success and failure in a course, identify students at risk; evaluate the impact of any new program on students' performance. Determinant analysis was used as a technique for addressing all these factors. In the research work discriminant was used to predict students' performance in an introductory electromagnetism course at Georgia Technical Institute. In this course, there was a high failure rate (greater than 30% made a grade of D or F) which resulted in a great cost to the institute and to students as success in the course was a prerequisite for all engineering majors. Discriminant analysis was used to identify the factors that were predictive of course performance and identify students who were at risk.

Based on information available from the student' cumulative records, fifteen (15) possible predictor variables were initially considered and the analysis selected only three (3) of the factors predictive of course performance. The analysis could successfully predict 50% of the students who eventually failed the class.

Richard Powell, Christopher Conway and Lynda Ross all of Athabasca University (UK) carried a research work on the "Effect of students' predisposing characteristics on students' success" The question of why some students successfully study through distance education and others do not is becoming increasingly important as distance moves from a marginal to an integral role in the provision of post-secondary education. The research work first advances a multivariate framework for examining this issue. It then explores the predictive capability of students' "predisposing characteristics" about their chances of successfully completing their first Athabasca University distance education course. Using Discriminant Analysis, nine predisposing characteristics were found to be significantly related to provide the basis for a comprehensive model for understanding success and persistence in distance education.

We deal with the problem of classifying a new observation vector into one of two known multivariate normal populations. Linear discriminant analysis (LDA) is now widely available. However, for high-dimensional data classification problem, due to the small number of samples and the large number of variables, classical LDA has poor performance corresponding to the

singularity and instability of the sample covariance matrix. Recently, Xu et al. [10] suggested modified linear discriminant analysis (MLDA). This method is based on the shrink type estimator of the covariance matrix derived by Ledoit and Wolf [6]. This estimator was proposed under the asymptotic framework $A_0 : n^{1/4} O_p$ and $p^{1/4} O_p$ when $p \neq y$. In this paper, we propose a shrink type estimator under more flexible high-dimensional framework. Using this estimator, we define the new MLDA. Through the numerical simulation, the expected correct classification rate of our MLDA is larger than the ones of other discrimination methods when $p > n$. In addition, we consider the limiting value of the expected probability of misclassification (EPMC) under some assumptions.

This research is an extension of the work of Pyryt, (2004). Titled, "Using Discriminant Analysis to Identify Gifted Children Psychology Science.

3.0 METHODOLOGY

The survey research design was adopted for this study. The total population for this study was 1,122. Participants in this study comprised students in the Faculty of Management Sciences. The participants were undergraduate students (41% 1st year students, 37% 2nd year students, and 22% 3rd year students) of three different bachelor programs: Insurance, Banking and Finance and Marketing. Student samples of the programs included in the study were chosen by the level coordinators by selecting one or more classes in all three bachelor years to hand out the questionnaires. Student attendance in the selected classes and thus the response in the data gathering were nearly complete, as these classes were either very

important or compulsory for the students. Students were selected for this study based on their prior achievements (school grades) which is reflected implicitly in their CGPA or explicitly checked by their level coordinator.

The students completed a paper and pencil questionnaire during class. The questionnaires took approximately 20 min to complete, and were semi-anonymous: the students were asked to fill in their matriculation number so that we were able to retrieve their gender, age and year of study from the level coordinators. Their names remained unknown to the researchers. Eleven students ticked multiple responses in their questionnaire and were thus removed from the study, leaving 1,109 cases from the original 1,122.

Multivariate analysis of variance was conducted, using General Linear Models (GLM) with SPSS 21, to find out whether the (combination of) the five talent factors differ between gifted and average students, which was the central question of this study. The independent variables were high reasoning ability, creativity, curiosity, large vocabulary and excellent memory. The dependent variable is gifted. The results of the evaluation of normality, linearity and multicollinearity were satisfactory. As a preliminary test for robustness, Tabachnick and Fidell (2007) suggest comparing sample variances for each dependant variable across the groups. The ratio of the largest to the smallest group variance did not approach 10:1 for any dependent variable. As a matter of fact, the largest to the smallest group ratio was about 1.9:1. The sample sizes were widely discrepant, with a ratio of 4.3:1. However, with very small differences in

variance, this discrepancy in sample sizes does not invalidate the use of multivariate analysis (Tabachnick and Fidell 2007).

In order to answer the second research question, concerning the importance of each of the five gifted factors' unique contribution to the differences between the groups, discriminant analysis was conducted. The five variables were not independent and show significant correlations that vary between 0.17 and 0.53. Creativity, excellent memory and high reasoning ability have the highest correlations (between 0.41 and 0.53). As these variables are correlated, the univariate tests do not properly show the relative importance of the variables in distinguishing gifted students from average students. In order to be able to interpret the contribution of each of the variables to the differences between the two groups and to determine which of the variables discriminate most, direct discriminant analysis was used with the six

gifted scales. In this study we used a significance level of 5%.

4.0 DATA ANALYSIS AND PRESENTATION

4.1 Result

The original questionnaire consisted of 35 items, divided over 5 scales: high reasoning ability, creativity, curiosity, excellent memory and large vocabulary. Based on reliability and factor analyses, items were deleted, reformulated, or replaced. The resulting questionnaire consisted of 20 items. The corrected scales were separately factor-analysed, and in all five scales, the items loaded on a single factor, showing unidimensionality of the scales (Field 2009). Using the often-used rule of thumb of 0.7 as an acceptable alpha value, and given the unidimensionality of the scales (Cortina 1993), all scales are acceptable, despite the small number of items in some of the scales.

Table 1 The five scales of the questionnaire with sample items and reliability scores

<i>Scales</i>	<i>Sample item</i>	<i>A</i>
<i>High Reasoning (4 items)</i>	<i>I am quick to understand things</i>	<i>0.71</i>
<i>Creativity (4 items)</i>	<i>I am imaginative</i>	<i>0.76</i>
<i>Curiosity (4 items)</i>	<i>I want to learn as much as possible</i>	<i>0.70</i>
<i>Excellent Memory (4 items)</i>	<i>I can correctly recall all that I am taught</i>	<i>0.78</i>
<i>Excellent Vocabulary (three items)</i>	<i>I can use different words to explain the same thing in many ways</i>	<i>0.83</i>

Table 1 presents a sample item and the reliability (Cronbach's alpha) for each of the five scales.

In order to examine whether or not the items were distributed correctly over the five scales, a principal component analysis was conducted on the 20 items with oblique rotation (Oblimin). The Kaiser–Meyer–Olkin (KMO) measure

verified the adequacy of the sample for analysis (KMO = 0.87).

Differences between gifted and average students.

The research hypothesis focused on determining the differences between gifted and average students with respect to the five gifted factors (high reasoning ability,

creativity, curiosity, excellent memory and large vocabulary). Table 2 shows the means and standard deviations.

Table 2 Descriptive statistics: means and standard deviations

	<i>Descriptive All gifted</i> (N = 373)		<i>Acct gifted</i> (N = 71)		<i>Insurance gifted</i> (N = 19)		<i>Banking gifted</i> (N = 32)		<i>Mkt gifted</i> (N = 242)	
	<i>Average</i> (N = 493)	<i>SD</i>	<i>Average</i> (N = 187)	<i>SD</i>	<i>Average</i> (N = 91)	<i>SD</i>	<i>Average</i> (N = 48)	<i>SD</i>	<i>Average</i> (N = 493)	<i>SD</i>
<i>High Reasoning</i>										
<i>Average</i>	4.8	0.8	4.8	0.7	4.8	0.8	4.9	0.9	4.8	0.8
<i>Gifted Creativity</i>	5.1	0.7	5.3	0.6	4.9	0.9	5.2	0.8	5.1	0.8
<i>Average</i>	4.9	0.7	4.9	0.7	4.8	0.7	5.0	0.7	4.9	0.7
<i>Gifted</i>	5.4	0.7	5.3	0.7	5.1	0.7	4.8	0.6	5.5	0.7
<i>Curiosity</i>										
<i>Average</i>	4.9	0.9	5.0	0.9	4.7	1.0	4.6	0.9	4.9	0.9
<i>Gifted</i>	5.3	0.8	5.3	0.8	5.5	0.7	4.7	0.8	5.4	0.7
<i>Excellent memory</i>										
<i>Average</i>	4.1	1.4	4.3	1.2	3.8	1.5	4.3	1.5	4.1	1.4
<i>Gifted</i>	4.8	1.3	5.4	0.9	5.1	1.1	4.1	1.2	4.7	1.3
<i>Large Vocabulary</i>										
<i>Average</i>	5.2	0.8	5.1	0.8	5.5	0.8	5.4	1.0	5.2	0.8
<i>Gifted</i>	5.8	0.7	5.6	0.8	5.5	0.8	5.8	0.6	5.8	0.7

For their large vocabulary (5.2 for Averaged and 5.8 for gifted groups), while the scores for excellent memory are lowest (4.1 for Averaged and 4.8 for gifted groups). These two characteristics also show the largest difference between gifted and averaged groups. The scores on large vocabulary show the largest standard deviations, especially for the Averaged group. Further, it is noticeable that gifted students in the banking and finance department assess themselves lower on Creativity, excellent memory, and large vocabulary than their Averaged peers do. GLM analysis using Wilks' criterion,

showed that the dependent variable was significantly affected by the distinction in Gifted and Averaged groups ($p = .000$; partial $g^2 = .04$).

In order to be able to interpret the contribution of each of the variables to the differences between the two groups, direct discriminant analysis was used with the five gifted scales as predictors of membership of the gifted or averaged group. This was executed for the whole data set, as well as separately for the four departments. The discriminant function that was calculated revealed a significant

overall difference between the gifted and average students ($p= 0.00$, Wilk's $\lambda = 0.83$, $\eta^2(7) = 159$, canonical $R^2 = 0.17$). This means that 17% of the variance can be accounted for by the combined predictors. The standardized discriminant function coefficient predictors and the discriminant function, as shown in Table 5, suggest that

4.2 Discussion of Findings

Table 4:Discriminant function analysis for all groups and for separate departments

	Wilk's λ	$\eta^2(7)$	P	Canonical R^2
All	0.83	159.00	0.00	0.17
Accounting	0.73	80.69	0.00	0.27
Insurance	0.79	25.03	0.00	0.21
Banking & Finance	0.78	19.01	0.01	0.23
Marketing	0.83	158.87	0.00	0.20

Table 5 : Standardized discriminant function coefficients for all groups and for separate departments

	All groups Function	Accounting Function	Insurance Function	Banking Function	Marketing Function
High Reasoning	0.05	0.29	-0.06	0.53	-0.18
Creativity	0.37	0.15	0.05	-1.01	0.62
Curiosity	0.27	0.12	0.55	-0.02	0.33
Excellent memory	0.36	0.60	0.56	-0.01	0.21
Large Vocabulary	0.41	0.18	-0.34	1.00	0.35

As shown in Table 4, separate discriminant function analyses for the four separate departments revealed significant differences between the gifted and averaged groups. The standardized discriminant function coefficients of predictors, as shown in Table 5, show that the best predictors for distinguishing gifted students from Averaged students differ for the various departments. The main predictor for accounting gifted students is their excellent vocabulary (0.60). For Insurance students, their excellent memory (0.56) and their curiosity (0.55) contribute

the best predictors for distinguishing gifted students from averaged students were large vocabulary, the excellent memory and creativity.

4.2 Discussion of Findings

Table 4:Discriminant function analysis for all groups and for separate departments

most to the differences between gifted and averaged students. For Banking students, their large vocabulary (1.00) and creativity (-1.01) show the greatest difference between gifted and Averaged students. The main predictor for marketing gifted students was creativity (0.62).

5.0 CONCLUSION AND RECOMMENDATIONS

Conclusion

The central question of this study was whether gifted students differ from Averaged students with respect to the

gifted factors (high reasoning ability, creativity, curiosity, excellent memory and large vocabulary) that have been found to be essential for exceptional accomplishment in academic life. The results showed that gifted students are significantly different from averaged students in terms of the combined as well as the separate variables. The effect sizes were medium when measured within the separate disciplines, but small for the group as a whole. Two issues need to be taken into account here. Groups of averaged students will also include a proportion of potential gifted students. Such potential gifted students could have various reasons for not realising they are gifted. They might not want to belong to an 'elite' group or might not want to spend extra time on studies.

A second issue to take into account is that effect size in the combined analysis has been affected by the different trends we found across departments. The second research question concerned which of the gifted characteristics contribute most powerfully to the differentiation between gifted and averaged groups. The strongest distinguishing factors for gifted and averaged students appeared to be the large vocabulary, excellent memory and creativity, while high reasoning and curiosity did not differentiate groups very much. The strong distinguishing value of creativity was unexpected, as creativity is not an explicit selection criterion for most gifted. High reasoning was the weakest factor. This was surprising, as gifted students are selected on their average school grades, and grades are affected by reasoning (Lubinski 2004). An explanation

for the negligible distinguishing value of high reasoning ability could be found in the fact that average students are more likely to overestimate their ability than gifted students, whereas gifted students tend to base their judgment of their ability to succeed more accurately on the actual difficulty level. In comparison with the averaged group, these gifted students of Faculty of Management Sciences, had larger vocabulary, which concurs with Kaczvinsky's (2007) findings in a similar study in the US. Excellent memory is very dominant in the Nigerian educational culture, where students are more grade-oriented as students in for example the United States are. It is therefore not surprising that the mean scores for 'excellent memory' are higher than the scores on any of the other factors.

Recommendations

Based on findings from this study the following recommendations were offered:

- i. Gifted students are significantly different from averaged students in terms of the combined as well as the separate variables. Therefore they need to be encouraged more in identification of their giftedness skill to continue to perform better and become reasonable students that will make the Faculty of Management Sciences proud.
- ii. The negligible distinguishing value of high reasoning ability could be found in the fact that average students are more likely to overestimate their ability than gifted students. In this regards, the average students need to belong to an 'elite' group to spend extra time on studies.

REFERENCES

- Altman, E.I., (1968). Financial ratios, discriminant analysis and the predicting of corporate bankruptcy. *J. Finance*, 23: 589-609. http://www.bus.tu.ac.th/departmen/thai/download/news/957/Altman_1968.pdf retrieved April 16, 2013
- Anderson, T.W., (1996). R.A. Fisher and multivariate analysis. *Stat. Sci.*, 11: 20-34. <http://www.jstor.org/stable/2246198> retrieved April 15, 2013
- Anderson, T.W., (1996). R.A. Fisher and multivariate analysis. *Stat. Sci.*, 11: 20-34. <http://www.jstor.org/stable/2246198> retrieved April 15, 2013
- Akinbo, R.Y.; Fagoyinbo, I.S.; Ajibode, I.A.; Adeboye, N.O. (2015). Discriminant analysis: an alternative to determine cut off mark for admission in Nigeria tertiary institutions. conference paper. <https://www.researchgate.net/publication/319109020>.
- Betts, J. R. and Morell, D. (1998). The Determinants of Undergraduate Grade Point Average: The Relative Importance of Family Background, High School Resources, and Peer Group Effects. *The Journal of Human Resources*, 34, 268-293
- Blaženka, D. and Dijana, O. (2012). Prediction of Academic Performance Using Discriminant Analysis. University of Zagreb, Faculty of Organization and Informatics, 224-231
- Cortina, J. M. (1993). What is Coefficient Alpha? An examination of Theory and Applications. *Journal of Applied Psychology*, 78, 98-104.
- Deakin, E.B., (1972). A discriminant analysis of predictors of business failure. *J. Account. Res.*, 10: 167-179. <http://www.jstor.org/stable/2490225> retrieved April 15, 2013
- Erimafa J.T., Iduseri A. and Edokpa I.W (2009). Application of Discriminant Analysis to Predict The Class of Degree for Graduating Students in a University System. *International Journal of Physical Sciences Vol. 4 (1)*, pp.016-021. Available online at <http://www.academicjournals.org/IJPS>
- Fernandez, E., Garcia, T., Arias-Gundin, O., Vazquez, A. & Rodriguez, C. (2017). Identifying Gifted Children: Congruence among Different IQ Measures. *Frontiers in Psychology*. *Front. Psychol.* doi: 10.3389/fpsyg.2018.00179.
- Field, A. (2009). *Discovering Statistics Using SPSS*. London: Sage Publications Ltd.
- Lubinski, D. (2004). Introduction to the Special Section on Cognitive Abilities: 100 Years after Spearman's (1904) "General Intelligence", Objectively Determined and Measured". *Journal of Personality and Social Psychology*, 86(1), 96-111.
- Kaczvinsky, D. P. (2007). What is an Honors Student? A Noel-Levitz Survey. *Journal of the National Collegiate Honors Council*, 8(2), 87-95.
- Kulcsár, E. (2009). Discriminant Analysis in Marketing Research. *"BabeşBolyai" University of Cluj Napoca*.
- Jean, D. and Judy, M.S. (2016). Sex determination using discriminant analysis. *American Journal of Physical Anthropology* vol.90:1
- Johnson, C.G., (1970). Ratio analysis and the prediction of firm failure. *J. Finance*, 25: 1166-1168. <http://www.jstor.org/stable/2325590> retrieved April 15, 2013
- Nyikahadzoi, L., Matamande, W., Taderera, E. & Mandimika, E. (2013). Determinants of students' academic performance in four selected accounting courses at University of Zimbabwe. *Research in*

- Higher Education Journal, PP 1-9
- Pegnato, C. W. (1958). An evaluation of various initial methods of selecting intellectually gifted children at the junior high level. Ann Arbor, MI: UMI Dissertation Services.
- Pegnato, C. W., & Birch, J. W. (1959). Locating gifted children in junior high school: A comparison of methods. *Exceptional Children*, 48, 340-367.
- Pyryt, C. M. (2004). Using Discriminant Analysis to Identify Gifted Children *Psychology Science*, Volume 46, (3), p.342 - 347
- Sharma, A. and K.K. Paliwal, (2006). Rotational linear discriminant analysis using Bayes rule for dimensionality reduction. *J. Comput. Sci.*, 2: 754-757. <http://www.scipub.org/fulltext/jcs/jcs29754-757.pdf> retrieved April 17, 2013
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using Multivariate Statistics* (5th ed.). Boston: Allyn & Bacon
- Thomas, E. W., Marr, J. M., Thomas, A., Hume, R. M. and Walker, N. (1996). Using Discriminant Analysis to Identify Students at Risk
- Hyodo, H., Yamada, Y., Tetsuto H. and Takashi S. (2012). A modified linear discriminant analysis for high-dimensional data, *Hiroshima Math Journal*. 42, 209–231.
- Wong, C. and Holt, G. (2003). Developing a contractor classification model using a multivariate discriminant approach. RICS Foundation. http://www.rics.org/site/scripts/download_info.aspx?fileID=2926&categoryID=450

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ABSTRACT

The study examined the effect of earnings quality on financial behaviour of deposit money banks (DMBs) in Nigeria. The study used data extracted from the financial statements of listed DMBs in Nigeria for the period 2008 to 2017. The study also employed panel data multiple regression technique. The result found that earnings quality has a positive and significant effect on cash balance of deposit money banks. The study concluded that earnings quality have positive and significant effect on financial behaviour of deposit money banks. In line with the conclusion, the study recommended that the management of deposit money banks should deploy flexible approach in form of window service to enable them respond quickly to profit making opportunities. This will increase their profitability and discourage them from engaging in any form of opportunistic behaviour, manipulative accounting tendencies and tempering with the credibility of the financial statement.

Keywords: Earnings Quality, Financial Behaviour, financial statement

1.0 INTRODUCTION

It is no more news that the public relies heavily on the financial statement for decision making and on this note the financial statement has to be reliable and free from both intended and unintended biases. According to Shehu (2014) reliability is when the quality of reported earnings is free of error, biases and unfaithfulness and which must represent actual intended representation. Therefore, for accounting information to be heavily relied upon by the public and to be regarded as high quality type; it must be neutral, timely, relevant, accurate, transparent, comparable, predictive, understandable, verifiable and unambiguous in its entirety. In view of this, financial reporting is one of the most important products of accounting system that tries to provide necessary information for users to make economic decisions on the evaluation of an economic enterprise's profitability and performance. Markets, business globalization, geographical expansion and the greater demand for information and integrity among investors, stakeholders and society in general find their assurance in the quality of their financial reporting. Reporting quality is the extent to which financial statements reflect the underlying economic performance of a company, and reporting credibility as the faith investors have in the accuracy of the financial statement presented to them (Nemit, 2015). This corroborates with the view of Bolo (2007) that measuring and providing information makes it possible to evaluate the past performance and effectiveness of possible future profitability and anticipated activities of an

organisation. Thus, financial reporting quality includes the accuracy of reported information to better describe a firm's operations.

The financial reporting quality is in accordance with a definition proposed by the Accounting Standards Board; this board asserts that one of the objectives of financial reporting is to inform potential creditors and investors to make reasonable decisions and evaluate the expected cash of the firm. The main indicators of financial information quality from the perspective of the developers of accounting standards are relevance and reliability which make information useful for decision makers (Hassas, 2006). The importance of financial information quality increases hundred fold in the event of some certain financial and non-financial events. Participants in these events require transparent and high-quality information on the financial performance and position of the firm so that information asymmetry is minimized thereof (Noravesh, 1998).

Financial reporting by a company has become an essential resource for any market participant, since it provides a reduced amount of information asymmetries between managers, investors, regulatory agencies, society and general stakeholders. Owing to this importance, the fundamental question that came to mind about the financial reporting quality is its effects on subsequent performance of a company. In response to this question, Ugbede et al (2013) documented that the financial information are independent and serves as means of communicating the

manager's performance in the company which explains their main attraction to influence earnings. Companies with better quality of financial information are associated with subsequent higher performance, due to the fact the market positively regards those companies which are committed to the issuance of good information for shareholders and other stakeholders, aiming to reduce information asymmetries between market participants (Garcia, Osma, & Penalva, 2010; Ahmed & Duellmand, 2011; Bushman & Smith, 2001; Bens, Nagar & Wong, 2002; Gunny 2005). Understanding the financial reporting practices of listed deposit money banks in Nigeria in relation to specific firm attributes will help regulators and other policy makers to make well informed decisions, regulations and policies to check unhealthy practices of earnings management.

Based on this importance, vast number of researches has been conducted on earnings quality but most of these studies focused on the relationship between earnings quality and firm characteristics such as; Karami and Akhger, (2014), Ahmed, (2014), Shehu and Farouk, (2014) among others but none of these studies considered financial behaviour of firm to the best of our knowledge. Thus, the present study will be significantly different from the previous studies by examining earnings quality as components of financial reporting quality instead of widely used disclosure levels in annual reports and its effect on financial behaviour of listed deposit money banks. Also, the study employs cash held balance as a measure of financial behaviour. The study of earnings

quality becomes necessary in order to unveil importance of the quality of financial statement and also to evaluate and understand its effect on financial behaviour. In line with this objective, the research question to be addressed is; what effect does earnings quality has on financial behaviour of deposit money banks in Nigeria. In consonance with this question; the research hypothesis is; earnings quality has no significant effect on financial behaviour of deposit money banks in Nigeria. The remaining parts of this study are structured as follow; section two presents the reviewed literature on earnings quality and financial behaviour, section three outlines the methodology adopted for the study. Data analysis and discussion is presented in section four while section five concludes the paper and proffer recommendations.

2.0 LITERATURE REVIEW

2.1 Overview of Earnings Quality and Financial Behaviour

Earnings quality is defined from different perspective; decision-usefulness perspective and economic-base perspective. From the decision-usefulness perspective earnings quality is regarded to be high if the reported earnings are useful for decision making (Khairul & won Adiba 2014). On the otherhand, the financial behaviour of firm is perceived as the financial activities that firms are involved which could either be measured by the investment activity, dividend pay-out ratio, amount of cash held and company value. Thus, the study adopt cash held by the deposit money banks

2.1.2 Earnings Quality and Financial behaviour

Leslie and Okoegule (2013), conducted a study evaluate of the implications of earnings management determinants in the Nigerian banking industry, They used the twenty three (23) banks listed at the Nigerian stock exchange as at 2010 as the population of the study. Out of which, eighteen (18) banks were selected as the sample of the study for the period of six years (2005-2010). The pearson product moment correlation as a technique for data analysis to identify the determinants of earnings management. The study found that audit committee size), audit fee, bank asset quality, bank size and board size were all negatively correlated with abnormal loan loss provisions (ABBL). Although the study was conducted in the Nigerian banking industry, the study used only correlation as means of data analysis which may not adequately explain the predictive relationship between firm characteristics and earnings quality.

Okolie, Izedomi and Enofe (2013) examined the impact of audit quality and earnings management by companies through discretionary accruals manipulations in Nigeria. Data were extracted from annual reports of 57 quoted companies in Nigeria between 2006 and 2011. Audit Firm Size, Audit Fees, Auditor Tenure and Audit Client Importance served as audit quality proxies while firm size (measured as the log of total asset) and leverage were used as control variables. The amount of Discretionary Accruals (DAC) was used to measure earnings Management. The results showed that

audit quality was significant and negatively related to the amount of DAC of quoted companies in Nigeria and coefficient of firm size was found to be insignificant.

Also, in study conducted by Ahmed (2014) on *the relationship between managerial characteristics and earnings quality of listed banks in Nigeria. The study used the Q test model to measure earnings quality of 17 listed banks in the Nigeria Stock Exchange between 2006 and 2010. The data for the study were obtained from secondary sources and analysed using logistic regression analysis. The managerial characteristics variables used includes: performance, managerial ability, managerial ownership and managerial cash holding liquidity risk. The results of the study revealed that managerial characteristics have significant positive effect on the level of earnings quality, while size (measured as total asset) and global financial crisis do not have significant effect on the level of earnings quality of listed banks in Nigeria. The study however, explained that the findings of this study could be attributed to the fact that all the banks used in the study are mega banks which met up with the N25billion minimum paid up capital fixed by the CBN. An indication of this is that all the banks in the sample can be categorised as the same in terms of size, hence, the insignificant effect of size.*

Povolotskaya (2014), conducted a study on empirical relations between accruals quality and future company performance. The study involved 6,461 observations

from which 497 European companies. The study period was between 2001 and 2013. Panel data regression technique was used for data analysis. The standard deviation of accrual residuals from modified Dechow and Dichev (2002) model was used as a proxy for the quality of accruals. One-year-ahead financial ratios (net working capital turnover rate, asset turnover, return on sales (profit margin), return on assets, earnings per share, and earnings-to-price ratio) are the proxies for future company performance. The study found evidence of significant negative effect of accruals quality on one-year-ahead return on assets, return on sales, earning-to-price ratio, and earnings per share ratio while significant positive relation was found between accruals quality and one-year-ahead asset turnover ratio.

Mohammadreza, Javad and Mahboubeh (2014) conducted a study on the relationship between conservatism and earnings quality in the Tehran stock exchange. The study sampled 135 firms out of accepted firms in Tehran Securities Bourse using criteria. The study adopted panel data regression model and equality test comparison, to establish a relationship between conservatism and earnings quality at 95% confidence level. The result of the study showed significant positive relation between conservatism and earnings quality. Hence the study argued that conservatism can increase earnings quality and reduce the conflict of interests between the investors and the management. Thus, the study recommended that managers should adopt conservative accounting to

improve the quality of their reported earnings.

Osemene, Muritala and Olawal (2014) conducted a study in order to empirically examine the impact of creative accounting on firm performance in Nigeria. The study used secondary source of data from seven financial institutions over the period of 2006-2011. The model adopted for this study is a modified Jones model (1995) as a measure of (dependent variable) creative accounting while return on asset (ROA) and return on equity (ROE) were used as the independent variable. The results from Levin, Chin Chun unit root test showed that the all the variables were non-stationary at level. The results from the study showed that proxy of creative accounting is positively related to return on equity.

Uweigbe et al (2015) conducted a study to assess the effects of firms' characteristics on earnings management of listed companies in Nigeria. The study used judgmental sampling technique to select a total of 20 listed firms in the Nigerian stock exchange market. The study period was between 2006 and 2010 and secondary data were extracted from the annual reports of the selected companies. The study adopted descriptive statistics and econometric analysis using the pooled ordinary least square regression for the listed sampled firms. Findings from the study revealed that firm size and firms' corporate strategy have a significant positive impact on earnings management (proxied by discretionary accruals) while the relationship between firms' financial

leverage and discretionary accruals of the sampled firms in Nigeria was not significant. Thus, the study concluded that large firms tend to have higher motivations and more prospects to engage in the manipulation earnings and exaggerate earnings due to the intricacy of their operations and the complexity for users to identify overstatement. It was observed that the study was conducted for the period of five years only and only three variables were used as the independent variable.

Issah, Hussein and Hussein (2015) conducted effect of earnings quality on liquidity risk on bank registration for Iraq stock exchange companies. Earnings quality was measured using the Jones model (1991), while liquidity risk was measure using current asset divided by current liability. Other control variable include asset (log of total asset), leverage (total debt to equity) and profitability (both ROE and ROA). The study found that earnings quality was significantly related to liquidity risk, ROE and ROA. However the study failed to state clearly its technique for data analysis and sample size.

Oluwokere, Tanko and andNyor (2016) conducted a study on firm structural characteristics and earnings quality deposit money banks in Nigeria. The study used secondary data from the published reports of thirteen (13) listed deposit money banks in Nigeria for over a period of ten (10) years between 2005 and 2014. The study used multiple regression as technique for data analysis, while residuals were generated through loan loss provisions.

The residuals know as abnormal loan loss provisions formed the dependent variable. The study did not find any evidence of significant relationship between firm leverage and financial reporting quality. They explained that unexpected result was as result of the fact that most of the other studies were not done in emerging economies and they concentrated on the manufacturing sectors.

It is very explicit that none of the literature reviewed above considered financial behaviour and this create an academic void which necessitate this study in order to examine the effect of earnings quality on financial behaviour. In conducting this research the study adopts that agency theory and signalling theory.

3.0 METHODOLOGY

Expos-facto research design is adopted in this study which is characterized with quantitative or numeric description of historical data. The population of the study comprises all the deposit money banks operating in Nigeria as at 31st December, 2018. The sample size was drawn through census sampling technique. Thus, the sample size of the study comprises of all 15 deposit money banks listed on the Nigerian Stock Exchange as at 31st December, 2018. The source of data for the study is secondary, and the data were extracted from the audited financial statements of the sampled banks. Vast number of proxies has been employed to measure earnings quality, but this study used Loan Loss Provision (LLP) as a measure of earnings quality of the listed deposit money banks in Nigeria. The method is widely used as

measure of banks' earnings quality because managers increase the provision for loan losses during periods when earnings are high, under the assumption of income smoothing (Wahlen, 1994). Also, the intuition underlying the choice of these variables is that in practice most bank managers decide the amount of loan loss provisions every month according to individual risk assessment on potential loans and loans write-offs (Chang, Shen, & Fang, 2008). This study adopts the method used by Chang et al. (2008) to estimate the discretionary component of loan loss provisions. In the model, loan loss provision (LLP) is a linear function of loan charge-offs (LCO) and the beginning balance of allowance for bad and doubtful debts (BBAL) for that year. It is expressed as follows:

$$LLP_t = F(LCO_{t-1}, BBAL_{t-1})$$

Hence

$$LLP_t = \alpha_0 + \alpha_1 LCO_{t-1} + \alpha_2 BBAL_{t-1}$$

Where

$$DLLP_t = LLP_t - (\alpha_0 + \alpha_1 LCO_{t-1} + \alpha_2 BBAL_{t-1})$$

The rationale behind the model is that discretionary accruals cannot be observed directly, it is estimated by regressing LLP on the independent variables (LCO &

BBAL). The discretionary loan loss provision (DLLP) is the error term, which is the difference between LLP, on the one hand and LCO for the year and the BBAL. Also, all the variables are scaled by the beginning balance of total assets (TA_{t-1}) in order to avoid heteroskedasticity. Based on the above discussion, our overall model is stated as follows:

$$chb_{it} = c_0 + c_1 enq_{it} + c_2 bsz_{it} + c_3 leve_{it} + \varepsilon_{it0} \dots 3.1$$

$$chb_{it} = c_0 + c_1 enq_{it} + c_2 bsz_{it} + c_3 leve_{it} + \varepsilon_{it1} \dots 3.2$$

$$chb_{it} = c_0 + c_1 enq_{it} + c_2 bsz_{it} + c_3 leve_{it} + \varepsilon_{it2} \dots 3.3$$

Where *chb* is cash held balance, *enq* represents earnings quality, *bsz* represents bank size, *leve* represents leverage, ε represent the error term, π represents the constant, c_0 - c_3 represents coefficients of independents and control variable, *t* represents time covered and *i* represents listed deposit money banks. The model is static in nature and it conforms to the panel model which is stated in pool, fixed effect and random effect. The table below shows the measurement of the variable. In the result estimation, each of the model will be examine and diagnostic test will be conducted to select the appropriate model for interpretation and discussion.

Table 3.1: Measurement of Variable

SN	Variables	Type	Measurements	Source
1	Cash held balance	Dependent variable	Logarithm of deposit and short-term fund	Mirkhalili and Mahmoudabadi (2018)
2	Earnings Quality	Independent variable	Residuals from Discretionary loan loss provision	Chang et al 2010, and Ahmed (2014)
5	Bank Size	Control Variable	Logarithm of total asset	Ahmed (2012)
4	Leverage	Control Variable	Ratio of debt to equity	Al-Taani, (2013)

The study conducted a robustness tests such as multicollinearity, correlation matrix and unit root test, in order to improve the validity of all statistical inferences of the study.

4.0 RESULT AND DISCUSSION

This section presents the result and it discussion in line with previous studies. The result of the descriptive statistic is presented in the table 4.1 below:

Table 4.1: Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max
chb	5.885714	.5101236	4	7
enq	6.357514	1.16661	-2.843688	5.003525
bsz	5.743438	.4601798	4.2886	6.5429
leve	7.780821	16.36817	-6.2468	191.2567

Note: chb, enq, bsz and leve represent cash held balance , earnings quality, bank size and leverage respectively.

Source: Author's computation, (2019)

The mean values of chb, enq, bsz and leve are 5.885714, 6357.514, 5.743438 and 7.780821 respectively. The common feature of these variables is that they all have positive mean values. This means that each of the variables displays increasing tendency throughout the sampling period. The average or mean value of cash held balance is approximately 5.88 which implies that the deposit and short-term fund of the deposit money banks is very high. The average value of earnings quality is approximately 6.36. This purport that level of earnings quality is very high across the selected banks. The average value of bank size is approximately 5.7434 which indicate that the bank size of the deposit money banks is very low. The average value of leverage is 7.78 and this indicates that the deposit money banks make use of high proportion of debt in their capital structure. Another characteristic of cash held balance is that it ranges from 4-7 with associated standard deviation value of

.5101236. This shows that deposit and short-term fund is very high but with less riskiness. Earnings quality ranges between -2.843688 to 5.003525 with associated standard deviation value of 1.16661. This indicates a low variability around the mean and it implies that the earnings quality is not widely dispersed among the listed banks. Thus, it is an indication that earnings quality practice is not common to all Deposit money banks. The bank size has the standard deviation value of .4601798 and it ranges from 4.2886 to 6.5429. Also, the leverage has a standard deviation value of 16.36817 and it ranges from -6.2468 to 191.2567. it is the most volatile variables among the variable used for this study. After the description of the variable, the study conducts correlation analysis the existence of a perfect association between the independent variable and control variable. The result is presented in the table 4.2 below:

Table 4.2: Correlational Matrix

Variables	earnings	bsz	leve
earnings	1.0000		
bsz	0.3578	1.0000	
leve	-0.0527	-0.0659	1.0000

Source: Author's computation, (2019)

The table 4.2 shows the correlation coefficients in-between each pair of the variables- earnings quality, bank size and leverage, and bank size and leverage. The first pair has the correlation coefficient of 0.35 and the second has -0.05. This means earnings quality and bank size move in the same direction and earnings quality and leverage move in the opposite direction. The second column shows the correlation between bank size and leverage. The

coefficient of correlation is -0.06; which implies an inverse association between the bank size and leverage. Thus, there is evidence of weak correlation coefficients, which invariably suggests that each pair of the variables is not perfectly correlated, and as such, the assumption of multicollinearity or perfect collinearity is refuted. This result is confirmed by the multicollinearity test conducted and presented in the Table 4.3 below

Table 4.3: Multicollinearity Test

Variable	VIF	1/VIF
bsz	1.15	0.869766
earnings	1.15	0.871135
leve	1.01	0.694684
Mean VIF	1.10	

Source: Author's Computation (2019)

Multicollinearity test was conducted to check whether there is a high correlation among the independent variables which may mislead the result of the study. Variance Inflation Factors (VIF) and Tolerance Values (TV) were used to test whether multicollinearity exists among the variables. The result is presented in the table 4.3 above reveals that none of the variables are perfectly correlated. This means there is absence of multicollinearity problem in our model. This was confirmed

by Variance Inflation Factors (VIF) which is less 10 and Tolerance Values (TV) which is less than 1. Having estimated the descriptive statistics and pre-model estimation test, the study estimates the stationarity of the variable in order to avoid spurious result. Therefore, in carrying out the inferential analysis of the effect, the study first tests for stationarity using Harris-Tzavalis technique. The results of this test are reported in table 4.4 below:

Table 4.4: Stationarity Test Using Harris -Tzavalis

Variables	HT-Statistic	z	p-value
chb	0.5750	-2.0669	0.0194
Enq	0.4414	-3.8802	0.0001
bsz	0.6615	-1.5923	0.0081
leve	0.0458	-9.2500	0.0000

Source: Author's computation, (2019)

A quick view of the table reveals that all the HT statistics are larger than the critical z statistics. This is also confirmed by the p values which are respectively less than the alpha value at 5 percent. This suggests that the null hypothesis of panels unit root is rejected with 95 percent confidence. Thus,

the panels do not contain unit root. Having confirmed the stationarity of the variables, the next step is to conduct a diagnostic test in order to estimate and interpret the model that is suitable for our study. The result of the diagnostic is reported in table 4.5 below;

Table 4.5: Diagnostic Test

	Statistic	Value
Panel A: BP LM	Stat.	104.61
	Prob	0.0000
Panel B: Hausman Test	Stat.	3.71
	Prob.	0.1566
Panel C: Poolability Test	Stat.	0.83
	Prob.	0.0487

Source: Author's computation, (2019)

The test of the random effects model against the pooled regression model is conducted using Breusch and Pagan Lagrangian multiplier test. The test results are reported in table 4.5 shows that the test statistics is asymptotically large with 0 percent probability value. Therefore, at alpha value of 5 percent the null hypothesis that there are no panel effects is rejected. This suggests that random effects model appears to be more adequate or robust than the pooled regression model. Also, the study conducts a poolability test to test between the fixed effect model and pooled model. The result confirms that fixed effect

is appropriate since the p-value is less than 5 percent. To have a firm robust test, the researcher also tests the random effects against the fixed effects using hausman test. As indicated in the table 4.5 the test statistics are abysmally small and associated with large probability value of 0.1566. Thus, given the alpha value at 0.05, the null hypothesis that the individual effects do not correlate with the included variables cannot be rejected. This implies that the random effects model has appeared again to be more adequate than the fixed effects model. The study therefore proceeds to estimate the random effects

Table 4.6 Regression Result (Dependent Variable: chb)

Variables	Coef.	Std. Err.	z	P> z
earnings	6.42e-06	3.07e-06	2.09	0.036
leve	.000444	.0018134	0.24	0.807
bsz	.6496897	.0850566	7.64	0.000
cons	2.11	.4876128	4.33	0.000
R-sq:	0.4586			
Wald chi2(3)	100.19			
Prob > chi2	0.0000			

Source: Author's computation, (2019)

From the result, it is shown that earnings quality and bank size have positive and significant effect on cash held balance while leverage has a positive but insignificant effect on cash held balance of deposit money banks in Nigeria. Also, the coefficient of determination reveals that 45.86% changes in cash held balance of deposit money banks can be explained by the independent variables and Control variable (measured as earnings quality, bank size and leverage). The wald chi-square from the regression is 100.19 with the p-value of zero and this reveal that the null hypothesis that all of the coefficients are jointly zero should be rejected. Thus, it implies that the earnings quality coupled with bank size and leverage in the model were able to explain variations in the cash held balance.

4.1 Discussion of Findings

From the regression results, it was found that earnings quality has positive and significant effect on cash held balance. This means that an increase in earnings quality increases the cash held balance of Deposit money Banks. This partially conforms to the findings of Sun, Yung and Rahman (2012). The explanation for this is

that earnings quality enhances information asymmetry among firms that have a high degree of information asymmetry and this may incur higher costs of external financing such as debt. Based on this, firms have to rely more heavily on internal sources of funds and must necessarily hold higher cash balances for their operational and investment needs. The study found that there is negative relationship between cash held balance and leverage. This implies that the higher the financial leverage of deposit money banks, the lower the cash held balance. This contradicts the signalling theory but conform to the assumption of Peking order theory. Also, the study found that bank size has positive and significant effect on cash held balance and this implies that an increase in the bank size increases cash held balance. The result of this study is in line with a priori expectation.

5.0 CONCLUSION AND RECOMMENDATIONS

The study concluded that earnings quality has positive significant effect on financial behaviour of deposit money banks. In line with the conclusion, the study recommends that the management of

deposit money banks should deploy flexible approach in form of widow service to enable them respond quickly to profit making opportunities that will increase their profitability and discourage them from engaging in any form of opportunistic behaviour, manipulative accounting tendencies and tempering with the

credibility of the financial statement. However, the study only adopts cash balance as a measure of financial behaviour, thus other studies should consider other proxy of financial behaviour such as dividend yield, investment opportunity among others.

REFERENCES

- Ahmed, A.S.&Duellman,S. (2011). Evidence on the role of accounting conservatism in monitoring managers' investment decisions. *Accounting and Finance*,51(3), 6090-633.
- Bens, D. Nagar, V. & Wong. M.F.H. (2002). Real investment implications of employee stock option exercises. *Journal of Accounting and Research*,40 (2),467-498.
- Bushman, R.M.& Smith, A. J. (2001), Financial accounting information and corporate governance. *Journal of Accounting and Economics*, 32; 237-333.
- Chen, F., O.K ., Li,Q. & Wang,X. (2011). Financial reporting quality and investment efficiency of private firms in emerging markets.*The Accounting Review*,86(4), 1255-288.
- Chang, R. D., Shen, W. H. A., & Fang, C. J. (2008). Discretionary Loan Loss Provisions and Earnings Management for the Banking Industry. *International Business & Economics Research Journal*, 7(3), 9-20.
- Garcia, L., J.,M., B., Garcia O., &Penalva, F. (2010), Conditional conservatism and firm investment efficiency. *Working paper* (Universidad Carlos III de Madrid,Madrid).
- Gunny, K. (2005). What are the consequences of real earnings management? *Working Paper*, University of Colorado.
- Lee, C.H., Li, L.,Y.& Yue, H. (2006). Performance growth and earnings management". *Review of Accounting Studies*,11(2-3)
- Lu , H., Richardson, G., & Salterio, S.(2011).Direct and indirect effects of internal control weakness on accrual quality: Evidence from a Unique Canadian Regulatory Setting. *Contemporary Accounting Research* 28(2)
- Leslie, D., E.&Okoeguale, B.P. (2013). An evaluation of the implications of earnings management determinants in the banking industry: the case of Nigeria. *African Journal of Social Science*, 3(3).
- Mahdi, N. &Mohamadreza, S. (2015). The impact of the internal control quality on cash flow and earnings quality: *Indian Journal of Natural science*, 6(31)
- Mohammadreza, V., Javad, M. B,&Mahboubbeh, H. (2014). the relationship between conservatism and earnings quality in Tehran stocks exchange. *Indian Journal of Fundamental and Applied Life Sciences*
- Okolie, A. O., Izedonmi, F. O. I. &Enofe, A. (2013). Audit quality and accrual – based earnings management of quoted companies in Nigeria. *Journal of Economics and Finance* 2(3) 07-16.
- Payam,M.,(2013). The impact of intellectual capital on earning quality: evidence from Malaysian firms, *Australian Journal of basic and applied sciences*, 7(2): 535-540,
- Povolotskaya, Y. (2014). Master thesis does the quality of accruals affect future company performance? Master thesis submitted to the Erasmus University Rotterdam.
- Shehu, U., H. (2015). Adoption of international financial reporting standards (IFRS) and earnings quality in listed deposit money banks in Nigeria. *Procedia Economics and*

- Finance*, 28, 92–101
- Shehu, U. H. & Ahmad, B. (2013). Firm characteristics and financial reporting quality of listed manufacturing firms in Nigeria. *International Journal of Accounting, Banking and Management*, 1(6), 47-63
- Shehu, U., H. (2012), Firm attributes and financial reporting quality of quoted manufacturing firms in Nigeria. *Unpublished Phd Dissertation, Postgraduate School, Ahmadu Bello University, Zaria*
- Shehu, U, H. & Farouk M., F.(2014), Firm Attributes and Earnings Quality of listed Oil and Gas Companies in Nigeria. *Review of Contemporary Business Research*. 3(1), 99- 114.
- Shehu, U., H.(2013), Financial reporting quality, does monitoring characteristics matter? An empirical analysis of Nigerian manufacturing sector. *The business & Management Review*, 3 (2).
- Tarus, M.Muturi, J., & Kwasira J.(2015). Determinants of accurate financial statements reporting in listed banks in Kenya; A survey of commercial banks in Nakuru Town. *Journal of Business and Management*, 17(4).
- Uwuigbe, U., Ranti, U., O. & Bernard, O. (2015). Assessment of the effects of Firms' characteristics on earnings management of listed firms in Nigeria. *Asian economic and financial review*, 2, 112-121.
- Ugebede, O. Lizam & Kuseri A. (2013), Corporate governance and earning management empirical evidence from Malaysian and Nigerian Banks: *Journal of management science and education*, 2(2).
- Uwuigbe, U., Peter D. S. & Oyeniyi A. (2014), The effects of corporate governance mechanisms on earnings management of listed firms in Nigeria: *Accounting and Management Information Systems*, 13(1), 159–174

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ABSTRACT

The purpose of the study was to investigate the effects of succession planning on organizational survival: Evidence from National Business and Technical Examination Board (NABTEB), Benin City. The sample size of two hundred and two (202) was selected from the population of the study through a random sampling technique. A semi-structured questionnaire was used to collect the needed information from the sampled respondents. Out of the 202 sampled, only 158 usable questionnaires were retrieved. Statistical Package for Social Science (SPSS) was used to analyse the data. Findings from the study show that there is a strong positive effect of predictor on the response variables. The study recommends among others that management should develop succession plan that corresponds with the organization's management philosophy and practice for better adaptability and dynamic capability that will enhance organizational survival.

Keywords: Succession, planning, survival, human resource management.

1.0 INTRODUCTION

Succession planning is the process that ensures the stability of tenure of personnel. It is perhaps best understood as any effort designed to ensure the continued effective performance of an organization, division, department or workgroup by making provision for the development, replacement and long-term retention of talented individuals (Akani, 2015). Management succession planning is the process of assessing and auditing the talent in the organization in order to answer three fundamental questions. First, are there enough potential successors available? Second, are they good enough? Third, do they have the right skills and competences for the future? (Armstrong, 2009). Therefore, securing and retaining skilled employees plays an important role in management succession plan that would not only focus on those who might be candidates for current positions but also, attempt to plan for possible changes in those positions as well as the promotion and development needs of subordinates (Milkovich & Boundreau, 1988; Obadan, 2013; Akani, 2015; Fapohumda, 2015).

The objective of succession planning is to ensure that the organization is prepared to fill key positions when the incumbents leave for any reason. For employees, succession planning provides useful information about the direction their career is likely to take if they continue to work in the organization. Furthermore, succession planning is based on information about managers gleaned from supply and demand forecasts talent audits and performance and potential reviews. To

keep track of their top talent, many organizations maintain a talent pool. A talent pool is a list of employees who have been identified as having high potential for advancement, usually because they are top performers in their current positions. The employees in a talent pool are those whom the organization is especially interested in retaining and developing. Charan, Drotter and Noel (2001) argues that it is essential for organizations to train successors before the vacancies are created. Ensuring that employees in the talent pool are considered when job openings occur is one tactic for successful long-term staffing of the organization (Wener, Sachuler & Jackson, 2012; Eshiteti, Okaka, Maragia, Odera, & Akerele 2013).

However, none existence of succession plan can pose a great challenge to strategic human resource management in situations where: employee retirement is at hand and a replacement is needed; there have been redundancies and dismissals of employees; sudden demise or physical medical incapacitation of employee (caused by accidents or ill health); unsignalled resignation of employee; and during promotion period. When faced with situation such as any of these, replacement from outside becomes the only option (Hills, 2007). In every sense, it is essential for any goal oriented organization to ensure that successors are available in their appropriate number, places, and time to fill key positions when the incumbents leaves for any reason. It is therefore of utmost importance for success-seeking organization to develop strategic succession plan for the organization as

these will help sustain the corporate structure in a competitive environment. Therefore, for an organization to realize its goals, appropriate strategies for retention and succession plan are sine-qua-non for enhanced performance and organizational survival.

The purpose of this study, therefore, is to examine the dimensions of succession planning and its effects on organizational survival in National Business and Technical Examination Board, Benin City. Finally, the study recommends among others that management should develop succession plan that corresponds with the organization's management philosophy and practice for better adaptability and dynamic capability that will enhance organizational survival.

2.0 LITERATURE REVIEW

Succession planning is a deliberate and systematic effort by an organization to ensure leadership continuity in key positions, retain and develop intellectual and knowledge capital for the future, and encourage individual advancement. Succession planning occurs when an organization adapts specific procedures to ensure the identification, development and long-term retention of talented employees. William, weather and Keith (1996) argues that regardless of the expansion or contraction of the total workforce in the organizations, the need for good managers is critical and continuous. They further posit that the availability of the right number, right kind of management staff at the right time and in the right positions is imperative. In the

words of Charan *et al.* (2001) succession planning is perpetuating the enterprise or organization by filling the pipeline with high-performing people to assure that every leadership level has an abundance of these performers to draw from, both now and in the future. From this perspective, succession planning is seen as management pipeline that accelerate management performance over a period of time. However, it is therefore essential, for an organization to survive, there is need to plan for succession of the older (outgoing) employees (Hazarika, 2009; Eshitetiet *al.*, 2013; Akani, 2015).

According to Noe, Houston, Hollenbeck, Gerhart & Wright (2000), succession planning is a process of identifying and preparing suitable high potential employees to replace key players within the organization as their terms expire. Similarly Bohlander and Snell (2007) sees succession planning as the process of identifying, developing, and tracking key individuals for executive positions. Collins (2009) asserts that succession planning is a method that can offer seamless leadership change across the organization. He posit further, that succession planning entails strategic, systematic and planned attempts to extend capabilities in prospective leaders through anticipated learning incidents like objective rotations and educational training so as to occupy high-level positions without nepotism.

The term succession planning usually is used interchangeably with replacement planning. However, replacement planning

is different in that it is a reactive approach to staffing that entails identifying replacements for key positions, usually at the senior levels of the organization. Succession planning is also closely intertwined with workforce planning process. Workforce planning allows the importance of job roles to be reviewed and critical training needs to be identified and prioritized (Garman & Glawe, 2004; Kiyonaga, 2004; Scharmer, 2007). Ideally, succession planning is a proactive approach to managing talent as it involves identification of high potentials for anticipated future needs and the tailored development of these talented employees so that there is a talent pool available to meet organizational demands as they arise (Akani, 2015). In today's fast-moving environment, succession planning may be more important and more difficult to conduct than ever before. Executives frequently lament that their firms are chronically short of talent. Yet in a survey of 150 executives with the nation's 1,000 largest companies in America, while all agreed on the value of identifying successors, only 72 percent said they are currently preparing someone to take their place (Bohland & Snell, 2007). Similarly, in a recent survey of 232 from four selected public sector universities in southwest Nigeria, 86.6 percent of the respondents indicated that the lack of effective human resource and succession planning has often resulted in employee turnover (Fapohunda, 2015). However, owing to the current spate of establishment of private universities by individuals and religious institution searching for talents in the same labour market as the public

universities the competition is now very keen. However, it is essential to note that the incumbents leaving the organization are futuristic and uncertain (Haynes & Ghosh, 2008).

Furthermore, succession planning is a continuous process and subjective; the selection criteria for successors depend on organizational policies, competence behavioural skills and the like. Therefore, future leadership of any organization is probably the most crucial aspect of its potential and continuing success and growth. Reasoning along similar line, Jackson (2011) identifies three solutions to successful transitions. First, is having a strategic plan that are attached to present performance metrics and aspirations while being centered on enduring goals that have extensive supports across the organization and for which there is logic of widespread cause and possession. The next involves building in-house aspirants for leadership positions to ensure constant high pattern of potentials inside the organization against which to evaluate the potentials of external applicants. Finally, it is imperative to boost a tradition that encourages a general sense of rationale and desires involving a real admiration of those that prioritize communal achievement ahead of personal acknowledgement.

Therefore, human resource planning assesses present and future human resource requirements so as to achieve organizational goals whereas succession planning spots important positions in the organization chain of command and trains successors to take over at the exits of the

incumbents (Adewale, Abolaji & Kolade, 2011; Fapohunda, 2015). However, Ojo (1998) affirms that both human resource planning and succession planning are vital to any organization and that neglects of either of these activities exposes an organization to severe human resource problems. The foremost distinction in the two is that human resource planning has a large-scale method involving the total workforce rather than individual or specific positions. Whereas succession planning is a more small-scale and proactive or regular method involving individual or specific positions concerning the contingency of the incumbent's exist from the organization which is futuristic and tentative (Nayab, 2010; Fapohunda, 2015).

Objectives of Succession Planning

The main objective of succession planning is to ensure that the organization is prepared to fill key positions when the incumbents leave for any reason. Specifically, the objectives of succession planning include:

- (i) Matching the organization's available (present) talent to its needed (future) talent.
- (ii) To help organization meet the strategic and operational challenges facing it by having the right people, at the right places, in the right times, to do the right things.
- (iii) Ensuring the continued cultivation of leadership and intellectual talent and to manage the critically important knowledge assets of organizations.
- (iv) To be proactive in terms of ensuring the continuity of leadership by cultivating talent from within the organization through

planned development activities (Ideh & Aghogban, 2018).

Importance of Succession Planning

According to Kessara (2012), the benefit and impact of having a succession plan in an organizational system is very obvious and immediate. First, by identifying and training high potential employees, their motivation level and skills in the workplace will be enhanced. Recognition from executives and managers will promote a healthy relationship between the management and employees. Succession planning implies that the organization supports hiring from within which has been proved to enhance employees' motivation significantly. Also, skilled and motivated employees often mean a high-performance organization as a whole. Secondly, planning aids a smooth hand-over from incumbents to successors, once the successors are called upon to take the roles, they will be well prepared after many years of training and development, they will have a good understanding of the organization's strategic directions, business responsibility and will already be absorbed in the organization's value and culture. Third, the overall business operational will be reduced as a result of succession planning. Moreover, a good succession plan can help cope with crises situations such as downturn in company's performance, scandals, and upset shareholders- highly relevant in today's prone environment (Akani, 2015). According to Adegoke (2013), the importance of succession planning includes:

- (1) Forming the basis for

- communicating career paths to each individual employee.
- (2) Helping to engage the leadership in supporting the development of high-potential leaders.
 - (3) Creating a more comprehensive resources planning system.
 - (4) Helping to build a data base that can be used to make better staffing decisions for key jobs.
 - (5) Providing critical development experiences to those that can move into key roles.
 - (6) Helping to improve employee commitment and retention.
 - (7) Helping to meet the career development expectations of existing employees.
 - (8) Top manager are aware that the continued survival of the organization depends on having the right people, at the right places, in the right times, doing the right things. Therefore, strategic success is, in large measure, a function of having the right leadership.
 - (9) Where succession planning is left informal and unplanned, incumbents tend to identify and groom successors who are remarkably like them in appearance, background and values. They, therefore, establish a bureaucratic kinship system which is based on homosexual reproduction.
 - (10) Helping to establishes development and training plans.

Reasons for Succession Planning

Several reasons have been adduced as to why organizations should support systematic succession planning (Cole,

2002; Bohlander & Snell, 2007; Adewale *et al.*, 2011; Werner, Schuler, & Jackson, 2012; Mutunga & Gachunga, 2013; Obadan, 2013; Akinyele, Ogbari, Akinyele & Dibia, 2015). Some of these reasons include:

- (i) To provide increased opportunities for high potential workers;
- (ii) To identify replacement needs as a means of targeting necessary training, employee education, and employee development;
- (iii) To increase the talent pool of promotable employees;
- (iv) To contribute to implementing the organization's strategic business plans;
- (v) To help individuals realize their career plans within the organization;
- (vi) To tap the potential for intellectual capital in the organization;
- (vii) To encourage the advancement of diverse groups;
- (viii) To improve employee's ability to respond to changing environmental demands;
- (ix) To improve employee morals;
- (x) To cope with the effects of downsizing;
- (xi) To reduce headcounts to essential workers only;
- (xii) To decide which employee's appointment can be terminated without any damage to the organization;
- (xiii) To cope with the effects of voluntary separation programmes;
- (xiv) To identify who is currently in post and who is available and qualified to take over in the event of

retirement, voluntary leaving, dismissal or sickness.

Dimensions of Succession Planning

Three major dimensions of succession planning are identified in the literature (Bell, 1996; Bohlander & Snell, 2007; Caldwell, 2007; David, 2008; Armstrong, 2009; Singh & Dixit, 2011; Bateman & Snell, 2011; Werner *et al* 2012; Gomez, 2013; Akani, 2015; Ideh & Aghogban 2018). They are mentoring, retention effort and management development.

(1) Mentoring

Mentoring is the process of using specially selected and trained individuals to provide guidance, pragmatic advice, and continuing support that will help the person or persons allocated to them to learn and develop. Mentoring is a method of helping people to learn and develop, as distinct from coaching which is typically observing employee in action and then provide feedback and guidance for how that employee can improve his or her interaction skills in the future. It is relatively directive means of increasing people's competence. Mentors prepare employees to perform better in the future and groom them for career advancement (Armstrong, 2009). The executives and managers who coach, advice, and encourage employees of lesser rank are called mentors. Mentors often assist individuals in developing leadership capabilities by helping them obtain assignments that will foster on-the-job learning. A mentor is a corporate executive or manager who supervises, coaches, and guide selected lower-level employees by

introducing them to the right people and generally being their organizational sponsor (Bateman & Snell, 2011).

According to Agulanna, Edward and Awujo (2005) mentors provide to those assigned to them the following:

- (i) coaching In specific skills;
- (ii) advice in drawing up self – development programmes;
- (iii) general help with learning programmes;
- (iv) guidance on how to acquire the necessary skills and knowledge to do a new job;
- (v) help in tracking projects by putting the trainee in the right direction, that is, helping them to help themselves.

When mentoring is more formalized, however, both the mentor and the mentee understand that they are engaging in activities intended to benefit the long-term development of the employee. Mentoring can increase employees' competencies, achievement, and understanding of the organization. Therefore, if leadership skills cannot be developed and improved through mentoring, all an organization can do is to search for good leaders and hope to find them somewhere.

(2) Retention Effort

Retention effort is an effort made by organization to support current employees in remaining with the organization. Das and Baruah (2013) has viewed retention as a process in which the employees are encouraged to remain with the organization for the maximum period of time or until the completion of the project.

According to Singh and Dixit (2011), effective employee retention is a systematic effort made by employers to create and foster an environment that encourages current employee to remain employed, by having policies and practices in place that addresses their diverse needs. Walker (2001) identified seven factors that can enhance employee retention as (i) compensation and appreciation, (ii) provision of challenging work, (iii) chances to be promoted and to learn, (iv) a healthy atmosphere within the organization, (v) positive relations with colleagues, (vi) a healthy balance between the professional and personal life, and (vii) good communications. Gomez (2013) found that factors such as a supportive company culture, performance evaluation that focuses on improvement rather than criticism, and a competitive pay structure influenced employee retention. Shakeel and But (2015) found that factors such as job satisfaction, training, job embeddedness, flexible work arrangements, career development, organizational values and beliefs, organizational commitment, work-life balance, organizational support, job involvement, job content, status, working conditions, relationship with immediate boss, pay promotion, social environment, respect and recognition and organizational justice and prestige have a direct influence on employee retention.

Retention effort is also made in times when promotions occur and actions need to be taken to ensure that those employees not advanced do not feel passed over and seek professional roles elsewhere (Akani, 2015). To ensure retention of these talented

employees after promotion decision, executives can take several steps. Ideally, there are other challenging positions in which talented employees can be placed; employees are inclined to stay where they feel appreciated and where they can grow (Michelle, 2011). Hence, retaining a well trained; skilled a contended workforce can lead an organization to greater heights while the lack of it can hamper its growth and development. However, managing workforce retention requires paying attention to efficiency and equity. Whether staff turnover occurs due to employee resignations, retirements, layoffs or discharge, administering the succession process often may incur the organization substantial costs.

(3) Management Development

Management development is concerned with improving the performance of managers in their present roles and preparing them to take on greater responsibilities in the future. Mumford and Gold (2004) described management development as an attempt to improve managerial effectiveness through a learning process. Mabey and Thompson (2000) affirms that management development covers a wide range of activities such as self-development through improving communication and presentation, and specific skills in managing office information and performance appraisals; financial management, managing other people; and managing in different cultures. According to Bateman and Snell (2011), organization development is a system wide application of behavioural science knowledge to

develop, improve, and reinforce the strategies, structures, and processes that lead to organization effectiveness. Similarly, Robbins, Judge and Sanghi (2009) view organizational development as a collection of planned change interventions, built on humanistic-democratic values, that seeks to improve organizational effectiveness and employee well-being.

Organizational effectiveness contributes to the analysis and diagnosis of people issues and proposes practical solutions; helps to develop resource capability by ensuring that the business or organization has the skilled, committed and engaged workforce it needs; helps to develop process capability by influencing the design of work systems to make the best use of people; and pursues an added value approach to innovation and service delivery (Armstrong, 2009). Ultimately, succession planning helps increase organizational capability- the capacity of the organization to continuously act and change in pursuit of sustainable competitive advantage. Formal approaches to management development include:

- development on the job through coaching counseling, monitoring, and feedback by managers on a continuous basis;
- development through work experience, which includes job rotation, job enlargement, taking part in project teams or task groups, and action learning;
- formal training by means of internal or external courses;

- Structured self-development by following self-managed learning programme agreed as a personal contract with the manager or a management development adviser- these may include guidance, or deliberate extension of knowledge or acquisition of new skills on the job.

In a nutshell, one of the key features of a structured management development system is a succession plan. This is basically a plan for identifying who is currently in post and who is available and qualified to take over in the event of retirement, voluntary leaving, dismissal or sickness. The various methods employed in management development can be placed into three main categories, as follows:

(a) Management Education: qualification bearing courses run by universities, for example MBA degrees, PhD degrees, and various professional examinations, Such as the Institute of Personnel Management of Nigeria (CIPMN); the level of work is regarded as post experience, and the emphasis is on acquiring knowledge and theory.

(b) Management Training: Internal and external courses, off-the-job and focusing on acquiring specific knowledge and relevant job skills; some experiential learning via course exercises.

(c) Experiential Learning: Learning by doing; on-the-job experience usually with guidance from superior or colleague (Cole, 2002).

However, were top management believes

in delegation and devolution, then the emphasis in management development in on self-development and on-the-job training. Where management is considered an elite group, then features such as accelerated promotion, graduate trainee programmes etc, tend to predominate. Such systems provide selective support for employee development by concentrating on high-fliers- persons with outstanding potential.

How to Undertake Succession Planning

Step 1. Understand current and future needs. A good place to start is to understand the future needs of the organization or business unit. This information can be sourced from the organization strategic plan and any relevant capability plans.

Step 2. Understand current capability. Undertake an assessment of the current capability of staff within your team or unit.

Step 3. Determine capability gaps and excesses. Compare the current and future capability needs to determine gaps. Assign these gaps to people.

Step 4. Address capability gaps. To address capability needs, the most common strategies are to:

(i) Hire: You may choose to fill your capability gap through the hiring of new staff. This is a good solution when you have the budget and your capability gap is critical or the skills may be difficult to internally develop.

(ii) Outsourcing: Can this capability gap be met by a new system or process or another department or external provider? If so, then you may seek to address the gap through an outsourcing strategy.

(iii) Develop: If you have planned well in

advance, you will be able to address your capability gaps through the development of your existing staff (Fakeye, 2013).

Models of Succession Planning

The models guiding this study are: Relay succession planning model and Scharmer's theory U Model. The relay succession planning model popularized by Santorin (2004) is adopted as a theoretical approach underpinning the study. Santorin advocates that the present Chief Executive Officer of an organization should pass the baton to a successor over a long period of time. He posit further that organizations that practice relay succession plans performed better because the successors were exposed to corporate challenges and they had ability to manage such challenges in the pre-succession period. Accordingly, the capability of the CEO to relinquish the baton in real time presents the successor the chance to test the reins of leadership and equally obtain training.

In the same vein, organizations that implemented relay succession planning model should perform better in the post-succession phase, because the understudies have been tried and tested which implies that experience would be speaking for them. Nevertheless, it is essential to note that not all organizations would hold the view that hiring internally is better; some organizations may prefer external people in order to inject fresh ideas and vision thereby bringing positive change into the organization.

Also, Scharmer's theory U model was popularized by Scharmer (2007) who

contends that the top management team should embrace and take steps towards implementing succession plans. The model sees succession planning as starting from the immediate future and supports a concept of a U process of five movements that can make change possible (Scharmer, 2007). These movements are: (i) Co-initiating-which entails an organization establishing a common purpose with all stakeholders about a future event. (ii) Co-sensing-in which an organization sees the need at hand collectively across borders. In addition, new ideas and innovation occur through collective input (iii) presenting-whereby the leadership of organization begins to see the future they envisage. This futuristic plan establishes a foundation for change, thereby spurs an organization to an expected end. Moreover, at this stage, the leadership lets go of unresolved past issues and progresses to a more realistic future (iv) Co-creating-is a stage where scharmer argues that, organization management explores the future and models what the future might look like. He posit further that leadership of the organization should make

succession planning a long-term concept rather than working on organizational immediate requirements. (v) Co-evolving-which can help an organization to embrace change and executing succession planning strategies in the context of an emerging future.

Conceptual Framework of Succession Planning

Specific succession planning programmes often vary from organization to another. Careful review of the existing literature found that effective succession planning programme have common elements, which can be organized as a practical ideal type conceptual framework. The elements of the framework are:

- (a) Top management support.
- (b) Dedicated responsibility.
- (c) Performance of needs driven assessment.
- (d) Professional development opportunities.
- (e) Focused individual attention.
- (f) Extension to all levels of the organization.

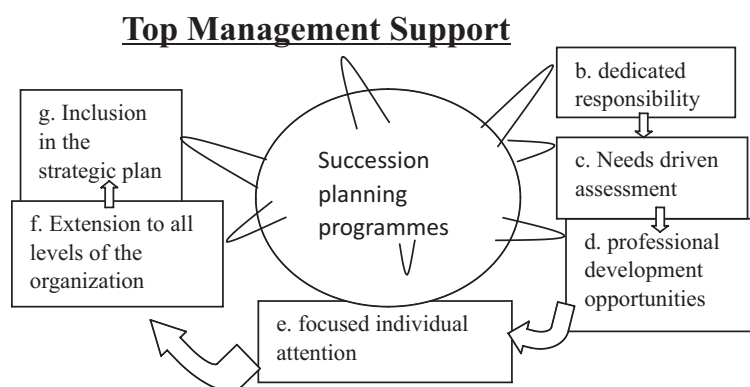


Figure 1: *Conceptual Framework of Succession Planning*

Source: Seniwoliba (2015). *Succession planning: Preparing the next Generation Workforce for the University for Development Studies*

Organizational Survival

According to Jones and Bartlett (2008), organizational survival and growth are implicit organizational goals requiring the investment of energy and resources. Therefore, the goal of organizational survival underpins all other goals (Gross, 1968). Organization that doesn't have survival as a primary objective or goal should have re-think. Survival of the organization in a vibrant and competitive business environment depends on how effectively the organization learns to adapt itself to the environment and capitalize on its resources fully (Lee, 2006 cited in Akani, 2015). Gross (1968) argues that the concept of survival is an unwritten law of every organization. This suggests that every organization should see survival as an absolute prerequisite for its serving any interest whatsoever. Therefore, long-term survival of organization and not the financial performance should indicate success of the organization. Moreso, organizations attempt to maintain the existing state of affairs, but essentially the larger part of their efforts is tilted toward survival (Adewale et al., 2011). In the context of this study, organizational survival is seen as a continued existence of an organization especially in a difficult or dangerous condition. Thus, when making decision about higher wage, higher dividend, and decision to invest in growth of the organization needs to come into consideration as the survival of the organization should come first (Michael, 2011; Akani, 2015; Akinyele et al., 2015).

Measures of Organizational Survival

Three measures of organization survival are identified in the literature (Dalziel & Mc Manus, 2004; Zahra, Sapienza & Davidson, 2006; Mc Manus et al., 2008; David, Gary & Amy, 2010). They are dynamic capability, adaptability capability and critical capability.

(i) Dynamic Capability: This refers to the dynamic ability to change or reconfigure existing substantive capabilities routines and resources in the manner envisioned and deemed appropriate by the organization's principal decision-maker(s) (Zahra, et al., 2006). Eisenhardt and Martin (2000) argue that with dynamic capability, organizations can create new resource configurations as markets emerge, collide, split, evolve, and die. They posit further that, the possession of dynamic capabilities alone does not necessarily provide any substantial advantage to organizations, but being able to manage the dynamic capabilities to achieve their strategic goals provides performance related advantages to organizations. David et al. (2010) sees dynamic capabilities as the organization's ability to integrate, build and reconfigure internal and external competencies to address rapidly changing environment. Zahra et al. (2006) contends that having dynamic capabilities to redeploy or reconfigure those substantive capabilities according to the strategic goals will help organizations grow and survive as they face changes in the internal and external environment. Therefore, the capacity of an organization to purposely

create, extend or modify its resource base will engender organizational survival.

(ii) Adaptability Capability: This refers to the ability or inclination of individuals or group to maintain an experimental attitude towards new situations as they occur and to act in terms of changing circumstances (Kellen, 2003). Similarly Dalziell and Mc Manus (2004) defines adaptability as the engagement and involvement of organizational staff so that they are responsible, accountable, and occupied with developing the organization's resilience through their work because they understand the links between the organization's resilience and its long-term success- the ability of the system to respond to the changes in its external environment and to recover from damage of internal structures with the system that affect its ability to achieve its purpose. Therefore, an organization's ability to adapt is at the heart of their ability to display resilient characteristics. Akani (2015) discusses the importance of adaptation and notes that the aim is to create advantages over less adaptive competitors. This suggests that adaptability is also linked to competitiveness. Adaptability capability is an aspect of resilience that reflects learning, flexibility to experiment and adopt novel solutions, and the development of generalized responses to broad classes of challenges.

(iii) Critical Capability: This refers to the ability to build capacity in your team so that you have support for your critical roles

(Fakeye, 2013). This will provide you're with flexibility when staff takes leave, or if staff takes other roles. Therefore, succession planning allows you to identify gaps and develop team members with the capability to address these gaps. Critical capability should be concentrated in areas that facilitate staff developing their careers, and assist the organization in meeting current and future capability needs.

S u c c e s s i o n P l a n n i n g a n d O r g a n i z a t i o n a l S u r v i v a l

Maintaining a place in this competitive era becomes not only the responsibility of the owners or leaders of the organization but that of the employees (Oke&Olughor, 2014). Organizational survival has been the primary goal or objective of every organization (Adewale et al., 2011; Erengwa, Nwuche& Anyanwu, 2017). Organization's future plans may change by some reasons such as serious illness, retirements, promotions within the organization, death or any voluntary departure from the organization. To cover such changes, organizations must have a key employee's replacement plan. Succession planning is considered as a suitable effort in this regard. Succession planning in this context is best described as a consistent or deliberate and systematic effort to identify leadership requirements, identify pools of high potential employees at all levels, accelerate the development of mission-critical leadership competencies in the employees through intentional development, select leaders from the employees pools for pivotal roles and then,

regularly measure progress (Couch, 2013). In addition, Odhiambo, Njanja and Zakayo (2014), affirms that succession planning is more than filling the top spots. It is a smart talent management strategy that can drive retention of talent throughout the organization and make sure that the organization has the skills it needs in place, or on hand, to respond to the rapidly changing business environment. Rothwell (2010) opines that the continued survival of the organization depends on having the right people in the right places at the right times.

Whether public or private, the organization's survival is based on its ability to bring on board and sustain high quality workforce over a period of time. However, many organizations are currently facing pressures to ensure their sustainability, flexibility, and responsiveness to the increasing uncertainty and limitations in the economic world. Ultimately, increased turbulence in the employment environment, characterized by organizational restructuring, funding uncertainties and increasing programme complexities have substantial effects on the way organizations respond to workforce replacement (Odhiambo et al., 2014). Rothwell (2010) forwarded the view that departments, work groups, business units, facilities and individual employees can all be considered component systems of the organization, this chain creates a succession chain-link for the organizational survival.

According to Kessara (2012), the benefit

and impact of having a succession plan in an organizational system is very obvious and immediate. First, by identifying and training high potential employees, their motivation level and skills in the workplace will be enhanced. Second, succession planning aids a smooth hand-over from incumbents to successors, once the successors are called upon to take the roles, they will be well prepared after years of training and development, they will have a good understanding of the organization's strategic directions, business responsibilities and will already be absorbed in the organization's value and culture. However, replacing high profile managers or employees is not a straight forward process, organization need an effective and structured succession plan to identify and train high potential employees, grooming and cultivating high potential employees require a training and development plan that can be focused on the strength and weakness of each selected employees (Akani, 2015). Therefore, the quality of leadership more than any other single factors determines the success or otherwise of an organization. The strategic importance of succession planning cannot be over emphasized because it is crucial to the survival of any organization.

3.0 METHODOLOGY

A survey research design was adopted. The study was conducted in National Business and Technical Examination Board (NABTEB), Benin City. Study respondents consisted of all the 408 staff members of NABTEB, Benin as at December, 2017. A semi-structured

questionnaire was used constituting of a five-point likert scale.

The sampling method used was the stratified random sampling technique. A stratified random sampling is a fair representation of the various strata within a given population of interest. Therefore, the sample size was obtained using the Yamane's formula:

$$n = \frac{N}{1 + Ne^2}$$

Where N = The population size,
 n = Sample size
 e = Sampling error
 I = Constant number

Given the population sized and with a sampling error of 5 per-cent, the required sample size was computed as:

$$\frac{n = 408}{1 + 4 - 9(0.05)^2} = 202$$

The sample size was determined using stratified random sampling technique. Department/section were divided into different strata and randomly selected to

ensure fair representative from each of the department/section that make up the sample size. The sample size selected for this study was 202 staff members.

4.0 DATA ANALYSIS AND DISCUSSION OF FINDINGS

Data Entry and Analysis

For the purpose of empirical analysis, the data obtained was analyzed and classified into specific categories of data levels to allow determination of the type of presentations and statistical operations to be employed. The data collected was coded into the computer using statistical package for social science (SPSS) Version 21.

Presentation of Results

This section of the study is devoted to presenting the results of the analysis performed on the data collected to test the propositions made in the study. Analysis were carried out with the aid of statistical package for social sciences (SPSS)

Table 1: Responses to Organizational Success Planning and Management Programme

Characteristics of a best practice succession planning and management programme	Very poor (1)	Poor (2)	Neither poor nor good (3)	Good (4)	Very good (5)	N	Mean
1. Clarified the purpose and desired results of the succession planning and management programme	7 (4.4)	21 (13.3)	27 (17.1)	35 (33.2)	68 (43.0)	185	3.8608
2. Determined what performance is required now for all job categories in the organization by establishing competency models	11 (7.0)	5 (3.2)	14 (8.9)	92 (58.2)	36(22.7)	158	3.8671
3. Establish a means to measure individual performance that is aligned with the competencies currently demonstrated by successful performers.	13 (8.2)	12 (7.6)	26 (16.4)	63 (40.0)	44 (27.8)	158	3.7152
4. Determined what performance is needed in the future by establishing future competency models for all job categories.	16 (10.1)	8 (5.1)	18 (11.4)	45 (28.5)	71 (44.9)	158	3.9304
5. Created an ongoing means by which to assess individual potential against future competency models.	7 (4.4)	17 (10.8)	29 (18.4)	72 (45.6)	33 (20.0)	158	3.6772
6. Established a means by which to narrow gaps through the use of individual development plans (CDPS)	18 (11.4)	21 (13.3)	24 (15.2)	54 (34.2)	41 (25.9)	158	3.5000
7. Created a means to follow up and hold people accountable	5 (3.2)	13 (8.2)	38 (24.1)	49 (31.0)	53 (33.5)	158	3.8354
8 Create a means by which to document competence and find organizational talent quickly when needed	16 (10.1)	9 (5.7)	22 (13.9)	73 (46.2)	38 (24.10)	158	3.6835
9 Created and sustained rewards for developing people	11 (7.0)	11 (7.0)	8 (5.1)	81 (51.2)	47 (29.7)	158	3.8987

Table 1 show that most respondents agreed with all the questions on the characteristics a best practice succession planning and management programme. Specifically, 73.4% respondents agreed that top management determined what performance is needed in the future by establishing future competency models for all job categories with the highest mean of 3.9304 and the least mean of 3.5000 on established means by which to narrow gaps through the use of individual development plans. The average mean score for the

characteristics of a best practice succession planning and management programme is 3.7880. this mean that the succession planning and management programme in National Business and Technical Examination Board (NABTEB), Benin City conforms with best practices.

Table 2 shows responses by respondents to suggested statements on the effects of succession planning on organizational survival.

Table 2: Shows responses of Suggested Statements (SS) on the Effects of Succession Planning on Organizational Survival.

	SA		A		NS		D		SD		Total frequency
	F	%	F	%	F6	%	F	%	F	%	
SS1	58	36.7	66	41.8	17	10.8	6	3.8	11	7.0	158
SS2	71	44.9	49	31.0	25	15.8	10	6.3	3	1.9	158
SS3	64	40.5	51	32.3	18	11.4	7	4.4	18	11.4	158
SS4	53	33.5	65	41.1	10	6.3	13	8.2	17	10.8	158
SS5	41	25.9	43	27.2	7	4.4	25	15.8	42	26.6	158
SS6	56	35.4	34	21.5	37	23.4	9	5.7	22	13.9	158
SS7	61	38.6	28	17.7	23	14.6	30	18.9	16	10.1	158

Source: Field Review, 2019

Key: SS-Suggested Statements

- SS 1:** Succession planning improves overall organizational performance.
- SS 2:** Succession planning enhanced organizational growth and survival.
- SS 3:** Succession planning is an effective strategy to minimize nepotism and turnover rate in the organization.
- SS 4:** Succession planning enhanced staff retention and adaptability capability.
- SS 5:** Time is the major challenge affecting succession planning exercise in the organization.

SS 6: Succession planning facilitates career development and dynamic capability.

SS 7: Succession planning is a strategic human resource management practice in today's competitive business environment.

Key: Responses to SS

SA: Strongly Agree; **A:** Agree; **NS:** Not sure; **D:** Disagree; **SD:** Strongly Disagree.

Suggested Effects of Succession Planning on Organizational Survival

The following effects of succession planning on organizational survival were highlighted by the respondents: improved employee commitment and retention, decreased nepotism and labour turnover, organizational growth, career development and dynamic capability, and better staffing decisions for key jobs.

Findings from table 2 shows that the majority of respondents, representing 78.5% of the entire respondents strongly agreed or agreed that succession planning improves overall organization performance while 10.8% of the respondents thought otherwise. Similarly, majority of respondents, representing 75.9% of the entire respondents strongly agreed or agreed that succession planning enhanced organizational growth and survival. This is against 8.2% of the entire respondents that disagreed or strongly disagreed that succession planning enhanced organizational growth and

survival. Equally, most respondents, representing 72.8% of the entire respondents strongly agreed or agreed that succession planning is an effect strategy to minimize nepotism and turnover rate in the organization. However, 15.8% of the entire respondents did not agreed with the suggested statement. Majority of respondents which comprised 74.6% also strongly agreed or agreed that succession planning enhanced staff retention and adaptability capability while 19th of the entire respondents thought otherwise. In the same way, majority of respondents 53.1% attributed that time is the major challenge affecting succession planning exercise in the organization while 42.4% of the entire respondents disagreed or strongly disagreed that time is the major challenge affecting succession planning exercise in the organization. As also observed in the table, most respondents which constituted 56.9% strongly agreed or agreed that succession planning facilitates career development and dynamic capability. In the same way, majority of respondents 56.3% strongly agreed or agreed that succession planning is a strategy human resource management practice in today's competitive environment.

Table 3 is derived from the responses in table above, explores the extents to which each statement was supported by respondents through the means of ranking the scores obtained by each suggested statement.

Table 3: Scores of Responses and Ranking of Suggested Statement (SS)

	SA(SA*2)	A(A*1)	NS(NS*0)	D(D*-1)	SD(SD*-2)	SCORE	RANK
SS 1	116	66	0	-6	-22	154	2
SS 2	142	49	0	-10	-6	175	1
SS 3	128	51	0	-7	-36	136	3
SS 4	106	65	0	-13	-34	124	4
SS 5	82	43	0	-25	-84	16	7
SS 6	112	34	0	-9	-44	93	6
SS 7	122	28	0	-3	-32	115	5

Source: Field Survey, 2019

Key: Score attached to Responses

Response	SA	A	NS	D	SD
Attached Score	+2	+1	0	-1	-2

SS 2 is the suggested statement to which the respondents significantly agreed to with a score of 175. The order cascaded down through SS1 (Score 154); SS3 (Score 136); SS4 (Score 124); SS7 (Score 115); SS6 (Score 93) and SS5 (Score 16).

Discussion of Findings

Succession planning was found to be the most significant independent variable having strong relationship with dependent variables. Findings on the relationship between succession planning and organizational overall performance are consistent with Waruiru and Kagiri (2013) studies which revealed that at a global level, succession planning in the recent times has received more attention not only as a concern for the management of human resources, but also as institutional strategic management component for ensuring

performance and growth. Findings on the statements, success planning improves overall organizational performance revealed that the majority agree with the statement. This finding is consistent with the study of Odhiambo, Njanja and Zakayo (2014) conducted in Kenya that succession planning practices improves organizational survival among the Non-governmental organizations in Kenya.

The findings on the statement, succession planning enhanced organizational growth and survival revealed that the majority agree with the statement. This finding is in line with the results of Adewale, Abolaji and Kolade (2011) which revealed that succession planning enhanced organizational survival and growth in three selected private universities in Ogun State, Southwest Nigeria. The finding of this

study also agrees with Akinyele, Ogbari, Akinyele and Dibia (2015) study which revealed what succession planning has a significant and positive impact on organizational survival. Seniwoliba (2015) also found positive relationship between succession planning and organizational survival.

The findings on the statement, succession planning is an effective strategy to minimize nepotism and turnover rate in the organization revealed that majority of the entire respondents agree with the statement. This finding concurs with the study of Adewale, Abolaji and Kolade (2011) conducted in three selected private tertiary institutions in Ogun State, Southwest Nigeria. They further argue that organizational conflict and nepotism play a vital role to enhance the organizational survival growth in the private tertiary institutions in Nigeria.

The findings on the statement, succession planning enhanced staff retention and adaptability capability revealed that majority of the entire respondents agree with the statement. This finding is consistent with the study of Fapohunda (2015) in Nigeria's higher education. The finding also agrees with Eshitetiet *al.* (2015) study that revealed the effects of succession planning programmes on staff retention. In support of this finding, Rothwell (2010) also demonstrated that succession planning bring about leadership continuity and building of talent from within.

The findings on the statement, time is the major challenge affecting succession

planning exercise in the organization revealed that majority of the entire respondents agrees with the statement. This finding is consistent with the study of Kiyonaga (2004). In support of this finding, Kessara (2012) demonstrated that time is a major challenge affecting succession planning exercise in the organization.

Findings on the statement, succession planning facilitates career development and dynamic capability revealed that the majority agree with the statement. In support of this, Adewale, Abolaji and Kolade (2011) found positive impact of succession planning on career development. Similar results were found by Akani (2015) on her work on management succession planning and corporate survival in Nigeria: A case study of banks in Portharcourt. Her study also revealed a positive effect of succession planning on dynamic capability. The finding of this study also agrees with Caldwell and Ann (2007) study that revealed the impact of succession planning on organizational dynamic capability.

Findings on the statement, succession planning is a strategic human resource management practice in today's competitive business environment revealed that majority of the entire respondents agrees with the statement. This finding is consistent with the study of Rothwell (2002) which revealed that succession planning does not have to be a complicated, time-consuming endeavour but understanding the key principles of an effective succession planning and

management initiative and working with experienced employees who have a proven track record to ensure that the critical initiative meets the organization's entire objective.

5.0 CONCLUSION AND RECOMMENDATIONS

From the findings of this study, we concluded that the practice of succession planning has become such a reality today as it enhanced organizational growth and survival in National Business and technical Examination Board, Benin City. In addition to this, the study concluded that the future leadership of an organization is probably the most crucial aspect of its potential and continuing success and growth. It is therefore suggested that succession planning should be put in place in order to ensure that the organization has the potential successors with the right skills and attributes it requires to meet organizational future needs. On the basis of findings of this study and conclusion, the following recommendations are made on succession planning to enhance organizational survival:

- (i) The management should place greater emphasis on coaching and mentoring for easy dynamic and adaptability capability that will enhance organizational survival.
- (ii) The top management should development succession plan that corresponds with the

organization's management philosophy and practice for better adaptability and dynamic capability that will enhance organizational growth survival.

- (iii) Management succession plan should be customized to the needs, vision, and mission of the organization and should form a part of its strategic goals to enhance corporate survival.
- (iv) Retention efforts should further be strengthened and the policies widened to increase adaptability and dynamic capability of the organization.
- (v) To ensure a successful implementation of the succession plan, the organization should have the commitment and support from top management; be guided by human resource professionals; be embraced by principal officer and middle management staff; focus on shared responsibility for employee development and ensure that employees take ownership of their development with strong management support.
- (vi) A well-developed training and education programmes should be designed to encourage employee's career development in the organization, so as to foster organizational survival.

REFERENCES

- Adegoke, A.A. (2013). *Advance human resource management II*. Lagos: Chartered Institute of Personnel Management of Nigeria.
- Adewale, O.O., Abolaji, A.J. and Kolade, O.J. (2011). Succession Planning and organizational survival: Empirical study on Nigerian private tertiary institutions. *Serbian Journal of Management*, 6(2), 231-246.
- Agulanna, C., Edward, A. and Awujo., C.A. (2005). *Human resource management: A graphic approach*. Imo: career publishers.
- Akani, V.C. (2015). Management succession planning and corporate survival in Nigeria: A study of banks in Portharcourt. *European Journal of Business and Management*, 7(27), 153-176.
- Akinyele, S.T., Ogbari, M., Akinyele, F.A. and Dibia, K. (2015). Succession planning and its impact on organizational survival. *JORIND*, 13(2), 1-10.
- Armstrong, M. (2009). *Armstrong's handbook of human resource management practice*, (11th.ed.). London: kogan page.
- Bateman, T. S. and Snell, S.A. (2011). *Management: Leading & Collaborating in a competitive world*, (9th.ed.). New York: McGraw-Hill.
- Bell, C. (1996). *Managers as mentors: Building partners for learning*. San Francisco: Berret Koehler.
- Bohlander, G. and Snell, S. (2007). *Managing human resources*, (14th.ed.). United Kingdom: Cengage Learning.
- Bottomley, M. (1983). *Personnel management*. London: Pitman publishing company Ltd.
- Caldwell, C.A. (2007). *Elements of effective succession planning. A working paper for the UCEDDS*. Silver spring MD: Association university centers on disabilities Retrieved from <http://www.aucd.org>
- Charan, R., Drotter, S. and Noel, J. (2011). *The leadership pipeline: How to build the leadership powered company*. San Francisco, G.A: Jossey-Bass.
- Cole, G.A. (2002). *Personnel and human resource management*, (5th.ed.). United Kingdom: Cengage Learning.
- Collins, J.K. (2009). *Good to great: why some companies make the leap and others don't*. New York: Harper Business.
- Couch, B. (2013). The emotional bond: vision and organizational commitment among high-tech employees. *Journal of Organizational Change Management*, 17(2), 21-29.
- Dalziel, E.P. and McManus, S. (2004). *Resilience, Vulnerability, and adaptive capacity: implications for systems performance*. New Zealand: University of Canterbury Press.
- Das, B. L. and Baruah, M. (2013). Employee retention: A review of literature. *IOSR Journal of Business and management*, 14(2), 8-16.
- David, B. (2008). Succession and development. *Journal of Executive Learning*, 44(8), 226-350.
- David, J.T., Gary, P. and Amy, S. (2010). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-533.
- Drucker, P. (1955). *The practice of management*. London: Heinemann.
- Eisenhardt, K., and Martin, J. (2000). Dynamic capabilities: What are they? *Strategic Management Journal*, 21(10/11), 1105-1121.
- Erengwa, K.N., Nwuche, C.A. and Anyanwu, S.C. (2017). Employee participation and organizational survival in selected manufacturing firms in portharcourt,

- Nigeria. *International Journal of Advanced Academic Research in Social & Management Sciences*, 3(3), 1-10
- Eshiteti, S. N., Okaka, O., Maragia, S.N., Odera, O. and Akerele, E.K. (2013). Effects of succession planning programs on staff retention. *Mediterranean Journal of Social Sciences*, 4(6), 157-162.
- Fakeye, O.O. (2013). *Manpower planning*. Lagos: Chartered Institute of Personnel Management of Nigeria.
- Fapohunda, T.M. (2015). Human resource planning and succession planning in Nigeria's higher education. *International Journal of Research in Management & Business Studies*, 2(2), 1-7.
- Fitz-enz, J. (1990). Getting and keeping good employees. *Personnel Review*, 67(8), 25-29.
- Garman, A.M. and Glawe, J. (2004). Succession planning. *Consulting Psychology Journal of Practice & Research*, 56(2), 119-128.
- Gomez, C. (2013). *Key elements in designing a management succession plan*. New York: Demand Media.
- Gross, B. (1968). *Organizations and their managing*. New York: The free Press.
- Haynes, R.K. and Ghosh, R. (2008). Mentoring and succession management: An evaluative approach to the strategic collaboration model. *Review of Business*, 28(2), 3-12.
- Hazarika, A. (2009). Building the pipeline: Leadership succession is a key challenge. *Leadership in Action*, 29(4), 8-12.
- Hills, E. (2007). 5 strategies for effective succession planning. *Ang. Conven of the Society for Human Resource Management*, 3, 61-68.
- Ideh, D. and Aghogban, B. (2018). *Advanced human resource management 2*. Lagos: Chartered Institute of Personnel Management of Nigeria
- Jackson, M.P. (2011). Evaluating the practical effectiveness of human resource planning applications. *Human Resource Management* 74(13), 19-27.
- Jones, A. and Bartlet, C. (2008). *Publishers acquires torascon publishing, Inc*. Retrieved from <http://www.reters.com/article/pressreleaseslid>.
- Kessara, S. (2012). *Succession planning: An essential ingredient for long-term survival and success*. The National Newspaper, May 2, 2012.
- Kiyonaga, N.B. (2004). Today is the tomorrow you worried about yesterday: Meeting the challenges of a changing workforce: *Public personnel Management*, 33(4), 357-361.
- Mabey, C. and Thompson, A. (2000). The determinants of management development: The view of MBA graduates. *British Journal of Management*, 11(3), 3-16.
- Mcmanus, S., Seville, E., Vargo, J. and Brundsdon, D. (2008). Facilitated process for improving organization resilience. *Natural Hazards Review*, 9(2), 81-90.
- Michelle, V. (2011). *Focus on talent retention to build bench strength*. New York: Cutting Edge Information.
- Milkovich, T. and Boudreau, J. (1988). *Personnel/human resource management: A diagnostic approach*, (5th.ed.). London: Homewood Illinois.
- Mumford, A. and Gold, J. (2004). *Management development: strategies for action*. London: CIPD.
- Mutunga, F. and Gachunga, H. (2013). Factors affecting succession planning in small and medium enterprises in Kenya. *International Journal of Academic Research in Business and Social Science*, 39 (8), 285-300.

- Nayab, N. (2010). *What is the difference between human resource planning and succession planning?* Retrieved from <http://www.brighthub.com/office/project-management/articles/79865.aspx>.
- Noe, A., Houston, G., Hollenbeck, R., Gerhart, G. and Wright, M. (2000). *Human resource managements: Gaining a competitive advantage*, (3rd.ed.). Boston: McGraw-Hill.
- Obadan, J.A. (2013). Succession planning in small business enterprises in Edo State of Nigeria. *European Scientific Journal*, 9(31), 64-76.
- Odhiambo, J.O., Njanja, L. and Zakayo, C. (2014). Effect of succession planning practices on organization performance among the non-governmental organizations in Kenya. *European Journal of Business Management*, 2(1), 141-154.
- Ojo, P.K. (1998). Human resources management: A strategic approach. *Human Resource Management*, 9(4), 21-24.
- Oke, M.A. and Olughor, R.J. (2014). The relationship between organizational survival and employee mental ability. *International Journal of Business and Social Science*, 5(1), 197-205.
- Robbins, S., Judge, T.A. and Sanghi, S. (2009). *Organizational behaviour*, (13th.ed.). India: Pearson Prentice Hall.
- Rothwell, W.J. (2002). Putting success into your success planning. *Journal of Business Strategy*, 23(3), 32-37.
- Rothwell, W.J. (2010). *Effective succession planning: Ensuring leadership continuity and building talent from within*. New York: American Management Association
- Santorin, J.C. (2004). Passing the baton. *Academy of Management Executive*, 18(4), 157-159.
- Scharmer, C.O. (2004). *Theory U: Leading the future at it emerges*. Cambridge, MA: The Society for Organization Learning, Inc.
- Seniwoliba, A.J. (2015). Succession planning: preparing the next generation workforce for the university for development studies. *Research Journal of Educational Studies and Review*, 1(1), 1-10.
- Shakeel, N. and But, S. (2015). Factors influencing employee retention: An integrated perspective. *Journal of Human Resources Development and Management*, 6, 32-49.
- Singh, S. and Dixit, R.K. (2011). Employee retention: The art of keeping people who keep you in business. *International Journal of Business and Management Research*, 1(7), 441-448.
- Smith, B.J., Boroski, J.W. and Davis, G.E. (1992). Human resource planning. *Human Resource Management*, 31(1/2), 81-93.
- Walker, J.W. (2001). Employee retention perspective. *Human Resource Planning*, 24(1), 6-10.
- Waruiru, W. E. and Kagiri, A. (2013). Effects of succession planning strategy on the performance of international Non-Governmental organizations in Kenya. *International Journal of Science and Research*, 6(14), 3147-3155.
- Werner, S., Schuler, R.S. and Jackson, S.E. (2012). *Human resource management*, (11th.ed.). United Kingdom: Cengage Learning.
- Willian, B., Weather, R. and Keith, D. (1996). *Human resource and personnel management*, (5th.ed.) New York: McGraw-Hill.
- Zahra, S.A., Sapienza, H. and Davidson, P. (2006). Entrepreneurship and dynamic capabilities: A review, model and research agenda. *Journal of Management Studies*, 43(4), 917-955.

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ABSTRACT

The main objective of the study is to test association between investment climate and attitude towards tax by SMEs in Plateau State. The study used cross-sectional survey design. Using Krejcie and Morgan (1970) sample size determination table, the sample size for the current study is 265 for a population of 875. The data for the study were obtained through administration of questionnaire and was analyzed using multiple regressions. The results indicate that shortage of electric supply, insecurity, perceived corruption, access to finance and taxpayers' attitude towards tax are significantly and positively associated. However, multiple taxation was found to be insignificant in explaining SMEs negative attitude towards tax. It was recommended that government should put measures in place to address shortage of electric supply, insecurity, inadequate access to finance and corruption to improve internally generated revenue through tax

Keywords: *attitude towards tax, insecurity, investment climate, access to finance,*

1.0 INTRODUCTION

While the contributions of SMEs to national development are generally acknowledged, it is worrisome that most of the entities have low tax compliance rate especially in Nigeria. In 2017, Nigeria's former finance minister, Mrs Kemi Adeosun, admitted that there was low-level tax compliance in the country especially among SMEs (Herbert, Nwarogu&Nwabueze, 2018). The tax compliance rate in Nigeria is put at 6% lower than the African average of 9% according to World Bank (2016). This scenario is replicated in 2018 where Nigeria is ranked 145 position out of 190 countries lower than most African countries like Namibia, Kenya, Zambia, South Africa, Uganda and Tanzania (World Bank, 2018). If this scenario is not addressed, the government may not be able to tap fully the revenue from these entities. As such, the government may not be able to meet all its financial obligations to the citizens.

The government of the Federal Republic of Nigeria in its bid to encourage tax payment in the past 3 years has amended the nation's tax policy, introduced digitalization and even launched programmes like VAIDS (Voluntary Asset and Income Declaration Scheme). The scheme is meant to provide incentive defaulting businesses and individuals to regularize their tax status without penalties within a given period. At the state level, some states have introduced similar measures to address the issue of low tax compliance especially among the SMEs. Such steps can be seen in the case of

Plateau State where the government offer a 50% discount for businesses and individuals who voluntarily submit there tax return to the Plateau State Board of Internal Revenue Service between July and December 2016. These efforts by the government have not yielded the desired results, as tax compliance rate of the entities is still adjudged as low.

Empirically, scholars have attribute poor attitudes towards tax to such factors as lack of proper enlightenment, level of education, gender, tax category, age and religion (Atawodi&Ojeka, 2012, Helhel& Ahmed, 2014, Inasius, 2018). Though these studies have provided understanding of the factors associated with attitude towards tax, they focus on cognitive attributes of the taxpayer. As such they do not provide sufficient understanding from the perspective of environmental factors such as investment climate factors. Investment climate is a set of economic, social and financial conditions in a country that affect individuals, businesses and institutions (World bank, 2016). The World Bank identified poverty, crime, infrastructure, workforce, national security, political instability, regime uncertainty, taxes, rule of law; property rights government regulations, transparency and accountability as investment climate factors.

The focus of the current study is on Plateau State for the following reason. The state has witnessed a lot of ethno-religious crises since 2001. This has affected businesses negatively especially the SMEs

in the state. Under this condition, the government is experiencing difficulty providing infrastructures and securing lives and properties. This has in turn affected individual tax taxpayer's attitude towards paying tax. Additionally the state is rated as one of the poorest states in the country with 51.6% poverty rate (www.naijahelm.co./2017). Therefore, there is the need to promote revenue generation in the state.

Prior studies have not documented sufficient evidence of the association between investment climate and tax compliance of SMEs especially in Nigeria even though it is acknowledged that small businesses operate under a harsh investment climate such as infrastructural deficit, perceived corruption, insecurity, and lack of access to finance, multiple taxes and insecurity. Unfortunately, there is dearth of empirical literature poor attitude towards tax by businesses especially the small businesses. Such studies we believe will guide policy decision aimed at changing taxpayer attitude towards tax positively, thereby improving government revenue. This study is set to fill this knowledge gap by empirically examine the relationship between investment climate and attitude towards tax by SMEs in Plateau State. The purpose of this study therefore is to examine the association between inadequate power supply, multiple taxation, access to finance, and insecurity, perceived corruption, and SMEs attitude towards tax in Plateau State Nigeria.

2.0 LITERATURE REVIEW

2.1 The concept of Small and Medium Enterprises (SMEs)

Small and Medium Enterprise Development Agency (SMEDAN) defines SMEs as entities that employ between 5 to 200 employees with assets value excluding land of less than five million and not above 500 million. The agency distinguished between micro, small and medium size entities. Accordingly, Micro-entities are those employing less than 10 employees with asset value of less than 5 million naira. Small enterprises are those employing between 10 to 49 employees with asset size of 5 million naira but less than 50 million while the medium enterprises are those employing between 50 to 199 employees with assets value of up to 50 million but less than 500 million. In this study the definition of SMEs by SMEDAN was adapted to guide the selection of considered to be SMEs. As such any entity with employees ranging between 10 to 200 with assets value of less than five million to maximum of 100 million naira are considered to be SMEs.

2.2 The concept of investment climate

Investment climate is a concept that has received high level of attention by international agencies, government and scholars alike as an important factor affecting businesses the world over. The main challenge is that there appears to be a little consensus as to what investment climate is. According, the definition of the concept varies across scholars and institutions such as the World Bank. For example, Dollar, Hallward-Driemeier, & Mengistae (2005) defined investment

climate as the institutional, policy, and regulatory environment in which firms operate. This definition suggests that investment climate is an external factor affecting businesses. According to the World Bank (2016) Investment climate describes the economic, social and financial conditions in a country that affect individuals, businesses and institutions. Investment climate factors include: poverty, crime, infrastructure, workforce, national security, political instability, regime uncertainty, taxes, rule of law, property rights government regulations, transparency and accountability.

This definition appears to be more comprehensive and provides a base for measuring the investment climate construct at the national and internal level. For example, it provides a base for assessing the differences in investment climate among countries. In this regards, scholars have been able to examine how strength of government regulation, poverty level, tax laws, transparency, corruption, and accountability explain differences in Foreign Direct Investment among countries (Quazi & Tandon, 2011). It can then be said that investment climate is location specific. Accordingly, we define investment climate as a set of location specific factors shaping the opportunities and incentives for firms to invest productively, create jobs and expand. The business environment can either promote or discourage private sector investment in projects. Today, organisations are seeking for ways to improving their performance to encourage high productivity and achieving of goals.

In this study, investment climate is conceptualized in terms of location specific factors such as insecurity, multiple taxation, access to finance, inadequate electric supply, and corruption in line with the World Bank view conceptualize the concept at firm level, which is the focus of this study, rather than at country level.

The concept of attitude towards tax

According to Ajzen's (1991) Theory of Planned Behavior, attitude relates to one's own personal views about a behavior. Attitude may also be defined as positive or negative views of an "attitude object"; i.e. a person, behavior or event. In relation to taxation, Nkwe (2013) defined taxpayers' attitudes as positive or negative views of tax compliance behavior. The outcome of positive views is tax compliance and negative views are tax non-compliance. In this study we conceptualized attitude towards tax in terms of incentives provided or lack of it by the government that affect the tax payers attitude either positively or negatively.

2.3 EMPIRICAL REVIEW

In the literature scholars have examined the relationship between various investment climate factors and other organizational phenomena like firm performance and foreign direct investments. For example, Dollar, Hallward-Driemeyer and Mengistae (2003) looked at the relationship between investment climate and firm performance in Bangladesh. They found that investment climate and firm level performance are highly related. Similarly, Kinda, Plane and

Varoudakis (2011) look at the relationship between investment climate and productivity of manufacturing firms in Middle East and North Africa. They documented that infrastructure, access to finance matter for firms' productive performance. In another study by Driemerier, Wallsten and Xu (2003) on investment climate and firm performance in India, the authors found evidence suggesting that, the ease of entry and exit, regulatory and administrative barriers to firm operation and availability of physical and technological infrastructure affect business performance.

Many studies focused on the constraints facing only foreign investors as such, they are more concern with various aggregate indicators of a country's institutional and policy environment, such as the rule of law, corruption, and openness to trade, legal origins, and financial sector depth. Such approach provides limited insights at firms' specific level.

Ma (2017) examined taxpayers' attitudes toward tax compliance in developed and developing countries. Using correlational analysis, it was documented that, age, gender and direct democracy have positive correlation with attitude towards tax in developed countries; their findings also suggest that these determinants have no significant effects on tax compliance attitudes in developing countries. It was also found that, tax knowledge only influence tax compliance attitudes in developing countries but not in developed countries. Other determinants of attitude

towards tax compliance such as income level were indicated to have produced very mixed results and remain uncertain in both developed and developing countries. National pride and religiosity were found to have a positive correlation with positive attitudes toward tax compliance in developed countries.

Wilks and Luis (2014) examined the influence of perceived fairness and corruption plus sanctions used by authorities to enforce tax compliance attitudes. Using a sample of 330 Portuguese economics and management, their findings suggest that trust in authorities and their capacity to deter and punish tax evaders are interrelated and that both are important in securing tax compliance.

In the Nigerian context scholars have examined the association between some investment climate variables and tax compliance. One of the leading articles in this regard is the one by Oboh, Yeye and Isa (2013) who examined the relationship between multiple taxes and taxpayers' non-compliance attitude in Nigeria. As such there is dearth of literature particularly in the Nigerian context examining a multiple set of investment climate variables though businesses in this part of the world are faced with adverse business environment. This study is an attempt to provide empirical evidence of the relationship between investment climate variables in and firms' attitude towards tax in Nigeria a developing country.

2.4 Theoretical review and hypotheses development

The anchor theory for this study is the benefit received principle. Theoretically, benefit received principle of taxation suggests that the burden of tax on an economic entity should be directly proportional to amount of benefits it receives from the use of public goods or services provided by government Musgrav (1959). In other words, consumers and businesses should pay to the government, the value of the public goods and services they have benefited from as if they were buying those goods and services. Such benefits include, provision of an enabling investment climate. This suggests that when taxpayers perceive the tax burden to be equitable, they are will be willing to pay more tax to the government.

The complementary theory used to understand and measure attitude towards tax is the theory of planned Behaviour by Ajzen (1991). The theory of planned behavior (TPB) is a generalized theory of human behavior in the social psychology literature that can be used to study a wide range of individual behaviors. It presumes that individual behavior represents conscious reasoned choice, and is shaped by cognitive thinking and social pressures such as environmental factors. The theory postulates that behaviors are based on one's intention regarding that behavior, which in turn is a function of the person's attitude toward the behavior, subjective norm regarding that behavior, and perception of control over that behavior. Such behaviour can be the persons behaviour towards tax. Based on earlier findings from empirical

studies and benefit-received principle, we developed the following hypothesis for this study:

1. *Ho: there is no significant relationship between shortage of electric power supply and attitude towards tax in Plateau State*

2. *Ho: there is no positive association between multiple-taxation and attitude towards tax in Plateau State.*

3. *Ho: There is no positive association between perception of corruption and attitude towards tax in Plateau State.*

4. *Ho: there is no significant relationship between level of insecurity and attitude towards tax in Plateau State.*

5. *Ho: There is no significant relationship between access to finance and attitude towards tax in Plateau State*

Note

3.0 METHODOLOGY

3.1 Research Design, population and sample size and strategy

This study employed cross-sectional survey design that is cross-sectional in nature to examine the relationship between the predictor variables and SMEs attitude towards tax. According to Kumar (2014) the survey design is used in a research where the researcher does not have control over the study elements. This design is considered suitable for the current study because the research does not have control over the SMEs. Additionally, the nature of

the variables and sample used for the study provides another motivation for using survey design rather than experimental designs.

The use of cross-section survey design is to enable the research collect the data for both the dependent and the independent variables at the same point in time as suggested by Bhattachejr (2012). This design enabled us to sample the opinion of SME owners and managers.

The population of this study comprises of all SMEs in Jos the Plateau state capital. According to Plateau State Small and Medium Enterprise Development Agency, the total number of SMEs in Plateau State stands at 1364 out of which 875 are within the scope of the current study. Using Krejcie and Morgan (1970 sample size determination table, the sample size for the current study is 265 for a population of 875. We used stratified random sample to select firms for the purpose of the study. According to Battachejer (2012), stratified random sampling is used where the population of study is considered to be heterogeneous in nature. In this study, the population is considered heterogeneous because it is made up firms in different industries. Firms across different sectors such as tailoring, hotels and motels, agriculture, carpentry, trading, hair dressing, barbing and welding were considered for the study.

3.2 Measurement of variables

The variables in this study are attitude towards tax, and investment climate.

Attitude towards tax

We conceptualized attitude towards tax as the extent to which taxpayers have negative or positive feelings towards paying tax. To measure the concept of attitude towards tax works of Kirchler and Wahl (2010) were adopted and modified to suit the context of the study. Sample some items in the scales included: I believe that government use the tax we paid judiciously, tax collectors are doing something that isn't right, I think the tax payers receive benefits from the tax they pay. All questions were anchored on a five point Likert scale with "1" = strongly disagree and "5" = strongly agree.

Investment climate variables

Shortage of Electric supply

Electric power supply was conceptualized in terms of shortage of electric power supply to SMEs. Respondents were asked to rate the extent to which issues such as high rate of power, frequency of supply, low voltage, over-billing post obstacles to their productivity on a five point scale ranging from 1, strongly not agree to 5 strongly agree. Some of the items in the scale include: the electric tariff is so high and cause challenge to my business; power failure is an obstacle to productivity in this business; over-billing is a serious challenge to my business. The scales were tested for reliability ($\alpha = 0.891$) and validity (total variance explained by five convergent factors = 78.3%).

Level of Insecurity

Insecurity was operationalized to measure the degree to which various security scenarios post a serious challenge to doing

business. The food security scales developed by Pérez-Escamilla (2012) were adopted and modified to suite this study. Items in the questionnaire include, Jos crisis, police harassment, activity of vandals and thread from community pressure groups. "I believe that any citizen should have enough to security to him or herself. I have some customers who say have relocated from Jos citing security as the main reason: ... I believe that security is all that, a right to have those things..." "The worse situation is not having a business but security of such business." Many people have no security. These were indicated on a five point Likert scale from 1 No challenge to 5 very high challenge. The scales were found to have high reliability ($\alpha = 0.851$) and validity (total variance explained by four convergent factors = 72.5%).

Multiple taxes

This variable was conceptualized in terms of multiplicity of taxes paid by the entities to the internal revenue service. Items in the scale include, VAT, income tax, withholding tax, tenement rent, agric. tax, parking space charges, vehicle licensing and property tax. Respondents were asked to indicate the level to which these tax items are applicable to their business. Response were indicated on a five point Likert scale of 1=not applicable at all to 5=very applicable. The scales for multiple taxation were tested for reliability ($\alpha = 0.74.9$) and validity (total variance explained by six convergent factors = 83.5%).

Access to finance

To measure this variable, questionnaire items developed by Claessens (2006) was adopted and modified to soot the current study. Items in the questionnaire include, I have easy access to bank loan, we get financial assistance when there is need for expansion, we are able to meet the collateral requirements of our bankers; the interest charged on the money we borrowed can be described as faire. I have access to money deposited in an account with microfinance institutions. These were indicated on a five point Likert scale from 1 strongly disagree to 5 strongly agree. The scales were tested for reliability and found to be reliable ($\alpha = 0.891$) and validity (total variance explained by four convergent factors = 53.5%).

Perceived corruption

To measure perceived corruption, the study adopted measures employed by prior studies. Specifically, the study adopted and modified scales used by Helhel (2014). Items in the questions include such questions as: tax revenue are not spent in the public interest; the revenue official sometimes ask bribe to reduce our tax liability; I am unwilling to pay tax because the tax officials don't pay tax to government; it is only the poor that are being forced to pay tax in this part of the country. All questions were indicated on a five point Likert scale of 1=strongly disagree, 2=disagree; 3=neutral; 4=agree and 5=strongly agree. The scales for perceived corruption were tested for reliability ($\alpha = 0.789$) and validity (total variance explained by five convergent factors = 86.5%).

3.3 Method of data analysis

This study adopted the use of multiple regressions to test the association between the independent variables and the dependent variable. In this study, the dependent variable is performance while the independent variables are infrastructural deficit, multiple taxation and level of insecurity.

Model specification.

The regression model specified for the study is in the form

$$\text{Taxattitude} = a + \beta_1 \text{Ideficit} + \beta_2 \text{Multax} + \beta_3 \text{Insecure} + \beta_4 \text{Accfin} + \beta_5 \text{CorruptionP} + U$$

Where,

taxattitude = attitude towards tax

Ideficit = Infrastructural deficit (measures as shortage of electric supply)

Multax = Multiple taxation (multiple taxes)

Insecure = level of insecurity

Accfin = access to finance

CorruptionP = perceived corruption

$B_{1,2,3,4,5}$ are regression coefficients

a = constant

3.4 Ethical Issues

In a survey research, it is necessary to take into consideration ethical issues. In undertaking this study, general ethical guidelines of informed consent, right to privacy and protection from harm (physical, emotional or any other kind was taken note of). In addition to the study, respondents were granted the right to express and voice their views freely in answering the items in the questionnaire.

The introduction letter whose emphasis was on confidentiality of participants' rights especially on issues regarding tax perception, and corruption were taken into consideration

4.0 RESULTS AND DISCUSSION

4.1 Sampling characteristics

In this study, it was essential to understand the characteristics of those who filled the respondents. In terms of number of employees, the results shows that majority (36.98) of the firms are small size entities with employees ranging between 10 and 49. Medium size firms form 33.20% of the firms surveyed with number of employees ranging between 50 and 199. Micro-enterprises form 29% of all the firms surveyed with employees number less than 10. In terms of industrial categorization, the result shows that the merchandising (trading) businesses form the majority (47.16%) of the firms surveyed with transport section forming the least (6.04%).

It was also essential to consider the cognitive attributes of those that filled the questionnaire. Looking at educational qualification, the descriptive statistics indicate that majority (38.49%) of those who filled the questionnaire have either a diploma or NCE certificate. Those with masters' degree form the least (8.30%). Gender distribution show that majority of those that filled the questionnaire are males (68.68%) while females form 31.32%. table 1 presents the results.

Table 1: Demographic statistics

		Frequency	Percentage %	Cumulative
Number of employees	<10	79	29.82	18.86
	10-49	98	36.98	55.84
	50-199	88	33.20	89.04
	Total	265	100	
Gender	Male	182	68.68	53.3
	Female	83	31.32	100
	Total	265	100	
Industrial category	Manufacturing	39	14.71	14.71
	Merchandising	125	47.16	61.87
	Agriculture	25	9.45	71.32
	Transport	16	6.04	77.36
	Services	60	22.64	100
	Total	265	100	
Educational qualification	Masters	22	8.30	8.30
	Bachelors /HN	89	33.58	41.88
	Diploma/NCE	102	38.49	80.37
	WAEC/WASC	52	19.63	100
	Total	265	100	

Source: authors' computation using SPSS version 22

4.2 Regression results

The regression results indicate that the coefficient of determination R^2 is 0.692 and is significant $p < 0.056$ @95% level of

confidence suggesting that the independent variables jointly explain 69.2% of taxpayers' poor attitude towards tax in Plateau State. Table 2 presents the result.

Table 2: model summary

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.832 ^a	.692	.678	.36813	.692	48.922	4	87	.000
a. Predictors: (Constant), electric supply, multiple taxation, Insecurity, access to finance, perceived corruption									

4.4 Test of hypothesis

The regression results indicate that shortage of electric power supply and SMEs negative attitude towards tax are significantly and positively associated ($r = .255, p < 0.05$) thus hypothesis one was rejected. This means that shortage of electric power supply is significant in explaining SMEs' poor attitude towards tax in Plateau State.

The results however indicate that multiple taxation and SMEs poor attitude towards tax are not associated ($r = .015, p > 0.5$) thus hypothesis two was upheld suggesting that multiplicity of tax as imposed by different levels of government does not have any influence on taxpayers' poor attitudes towards tax. It can then be said that multiple taxation is not relevant in explaining the attitude of taxpayers towards tax in Plateau State since increase in taxes does not bring about any significant increase in SMEs negative attitude towards tax.

We also tested the association between perceived corruption and SMEs' poor attitude towards tax. The result showed perceived corruption and SMEs poor attitude towards tax are positively associated ($r = 0.342, p > 0.5$). Therefore we

failed to accept hypothesis three. This means that corruption by public office holders and tax administrators contribute significantly in explaining SMEs poor attitude towards tax in Plateau.

The aim of hypotheses four was to test the association between insecurity and SMEs poor attitude towards tax. The findings showed that insecurity and SMEs poor attitude towards tax are positively and significantly associated ($r = 0.484, p < .05$). Therefore, the null hypothesis was rejected. In other words, the level of insecurity experienced in Plateau State is a key factor explaining why SMEs have poor attitude towards tax in the state.

Hypotheses five tested the relationship between access to finance and SMEs poor attitude towards tax in Plateau State. It was found that there is a negative and significant relationship between access to finance and SMEs attitude towards tax in Plateau State ($r = -.289, p < .05$). Therefore we failed to accept the null hypothesis. Suggesting that the more SMEs have access to formal sources of finance, the more they will have positive attitude towards tax. The results are presented in table 3

Table 3: coefficients

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.443	.523		.848	.399		
	Multiple tax	.015	.084	.013	.181	.857	.709	1.410
	Insecurity	.384	.076	.414	5.025	.000	.521	1.919
	Access to finance	-.289	.068	.363	4.236	.000	.482	2.076
	Electric supply	.255	.105	.184	2.436	.017	.623	1.605
	Perceived corruption	.342	.217	.156	2.35	.002	.416	2.406

a. Dependent Variable: Attitude towards tax

Source: Authors' computation using SPSS version 22

4.5 Discussion of Findings

The result of testing hypothesis one indicate that, shortage of electric supply and SMEs attitude towards tax are significantly related. This is in line with previous studies (Driemerier, Wallsten & Xu 2003). Their result indicates that infrastructural deficit such as power supply affects business performance in Bangladesh. This may be as a result of the fact that, when there is no sufficient power supply to businesses, they may resort to the use of alternative sources such as the use of generator sets. The cost of using alternative sources is higher than getting power from the national grid. This reduces the profits of the SMEs as such they will have a negative attitude towards paying tax to government who are supposed to supply sufficient electricity for businesses to thrive.

The test of hypothesis two indicates that multiple taxes and SMEs negative attitude towards tax are not significantly associated. This result contradicts Oboh, Yeye and Isa (2013) who found revealed that multiple tax practices significantly affect taxpayers' compliance attitude. This contradiction may be as a result of locational differences. The study by Oboh et al (2013) was carried out in Lagos State while the current study was carried out in Plateau State with less multiplicity of tax compared to Lagos.

This study also found that perceived corruption and SMEs negative attitude towards tax are significantly associated. This result is in line Kogler, Batrancea, Nichita, Pantya, J., Belianin, and Kirchler, E. (2013). that Corruption in the public sector erodes tax compliance and leads to

higher tax evasion. Moreover, corrupt public officials abuse their public power to extort bribes from the private agents.

The result also suggests that insecurity and SMEs poor attitude towards tax are associated. This is so because, provision of security is one of the reasons people pay tax to government. If government fails to provide such businesses are affected and will lead to lack of trust between the taxpayers and the government. This lack of trust can result to negative attitude towards tax. This is in line with Baum and Gupta (2017) who documented that trust in government is significantly associated with tax compliance in India.

It was also found that access to formal sources of finance and SMEs negative attitude towards tax are negatively associated. When government put policies in place that promotes SMEs access to formal sources of finance such as bank credit, they will be able to expand their business and make good returns. This will make them have positive attitude towards tax. This finding is in line with Gupta (2018) who found that access to finance increases tax compliance in India.

5.0 CONCLUSION AND COMMENDATION

5.1 CONCLUSION

From the result of our findings, it can be deduced that the shortage of electric supply, insecurity, poor access to formal

finance and corruption are the main reason why SMEs in Plateau State have poor attitude towards tax. In fact it can be concluded that the investment climate in Plateau State is harsh and thereby discourages businesses hence their poor attitude towards tax.

5.2 RECOMMENDATION

Based on the conclusions from the results of the study, the following recommendations are suggested to improve SMEs poor attitude towards tax in Plateau State.

The government should in collaboration with private developers consider expanding alternative sources of power for businesses. Such collaboration should focus on expanding the capacity of power generation in Kura falls. The government should also identify other potential sources such as biogas obtained from domestic waste to supplement the national grid. This can be done through public private partnership.

Government should improve the security around business areas like terminus market, GadaBiyu, Farin-gada, Bukuru, New Market, AngwanRukuba, Rukuba satellite market. This will help protect businesses against vitalisation and improves SMEs attitude towards tax. Adequate measure should be put in place to ensure that SMEs in the state have easy access to formal sources of finance especially from the formal sector.

Revenue officials should also ensure that transparency in the collection and management of revenue from taxes.

5.3 Limitations of the study

The cross-sectional nature of the study self-employment (SE) may not entirely be a reflection of the current changing environment (Blumberg et al, 2014). This limitation may complicate the efforts to rid

the Nigerian Government of the problem in light of the fact that its solution remains largely elusive. Additionally, a number of research assistants were engaged to distribute and collect back answered instruments. Research assistants normally lack theoretical and construct knowledge. This is likely to pose significant limitations in case participants seek clarification on seemingly unclear items.

REFERENCES

- Ajzen, I. (1991). "The Theory of Planned Behavior," *Organizational Behavior and Human Decision Processes* (50), 179-211.
- Atawodi, O. W., & Ojeka, S. A. (2012). Factors that affect tax compliance among small and medium enterprises (SMEs) in North Central Nigeria. *International Journal of Business and Management*, 7(12), 87.
- Bhattacharjee, A. (2012). "Social Science Research: Principles, Methods, and Practices". Textbooks Collection. Book 3. http://scholarcommons.usf.edu/oa_textbooks/3
- Blumberg, B. F. Cooper, D. R. and Schindler, S. P. (2014). *Business Research Methods* 4th Edition. Published by McGraw- Hill Education (UK) Limited, New York, 2014
- Claessens, S. (2006). Access to financial services: a review of the issues and public policy objectives. *The World Bank Research Observer*, 21(2), 207-240.
- Dollar, D., Hallward-Driemeier, M., & Mengistae, T. (2005). Investment climate and firm performance in developing economies. *Economic Development and Cultural Change*, 54(1), 1-31.
- Gupta, O. (2018). A closer look at the impact of GST on various sectors of the Indian economy. *Journal of Public Policy & Environmental Management*, 2(1), 36-49.
- Hallward-Driemeier, M., Wallsten, S. J., & Xu, L. C. (2003). *The investment climate and the firm: Firm-level evidence from China*. World Bank Publications
- Helhel, Y., & Ahmed, Y. (2014). Factors affecting tax attitudes and tax compliance: a survey study in Yemen. *European Journal of Business and Management*, 6(22), 48-58.
- Herbert, W. E., Nwarogu, I. A., & Nwabueze, C. C. (2018). Tax Reforms and Nigeria's Economic Stability. *International Journal of Applied Economics, Finance and Accounting*, 3(2), 74-87.
- Inasius, F. (2018). Factors Influencing SME Tax Compliance: Evidence from Indonesia. *International Journal of Public Administration*, 1-13.
- Kinda, T. (2010). Investment climate and FDI in developing countries: firm-level evidence. *World development*, 38(4), 498-513.
- Kinda, T., Plane, P., & Végonzonès Varoudakis, M. A. (2011). Firm productivity and investment climate in developing countries: how does Middle East and North Africa manufacturing perform?. *The Developing Economies*, 49(4), 429-462.
- Kirchler, E., & Wahl, I. (2010). Tax compliance inventory TAX-I: Designing an inventory for surveys of tax compliance. *Journal of Economic Psychology*, 31(3), 331-346.
- Kogler, C., Batrancea, L., Nichita, A., Pantya, J., Belianin, A., & Kirchler, E. (2013). Trust and power as determinants of tax compliance: Testing the assumptions of the slippery slope framework in Austria, Hungary, Romania and Russia. *Journal of Economic Psychology*, 34, 169-180.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research

- activities. *Educational and psychological measurement*, 30(3), 607-610.
- Kumar, R. (2014). *Research Methods. A step by step guide for beginners*
- Ma, J. (2017). *Taxpayers' attitudes toward tax compliance in developed and developing countries: a critical review of the literature* (Doctoral dissertation, Auckland University of Technology).
- Musgrave, R. A. (1959). *Theory of public finance; a study in public economy.*
- Nkwe, N. (2013). Tax payers attitude and compliance behaviour among Small and Medium Scale Entities in Botswana. *Journal of Business and Management Horizons* Vol 1(1)
- Oboh, C. S., Yeye, O., & ISA, E. F. (2013). Multiple Tax Practices and Taxpayers' Non-Compliance Attitude in Nigeria. *International Research Journal of Finance and Economics*, (103), 151-161.
- Pérez-Escamilla, R. (2012). Can experience-based household food security scales help improve food security governance? *Global food security*, 1(2), 120-125.
- Quazi, R. M., & Tandon, S. (2011). *Foreign Direct Investment and Investment Climate in China and India: a Comparative Analysis*. Working paper.
- Wilks, d. C., & Pacheco, l. (2014). Chapter four tax compliance, corruption and deterrence: an application of the slippery slope model. *interdisciplinary insights on fraud*, 87.
- World Bank Group. (2014). *World development indicators 2014*. World Bank Publications.
- World Bank. (2016). *Doing Business 2017: Equal Opportunity for All*. World Bank Publications.
- World Bank. (2018). *About Doing Business*. A publication of the World bank, 2018

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ABSTRACT

The series of bank failures reminiscent of pre-consolidation scenario were attributed to weak regulations and brought about questions as to why Nigerian banks kept experiencing these corporate governance failures in spite of new corporate governance codes. It would appear that the banking industry is not sufficiently committed to corporate governance ideals considering history of instability in the industry. A critical area of governance is that which relates to Terms and Conditions guiding the customer-banker relationship. The Terms and Conditions are here narrowed down to the three pillars of corporate governance as follows: Effective Communication, Transparency and Accountability. This study underscored the importance of customers as one of the stakeholders with direct impact, and determined their perception of how banks are committed to governance codes relating to Terms and Conditions. It used primary data obtained from the administration of questionnaire to 5,200 customers of 13 banks in Nigeria. The questionnaire was adapted from the provisions of the Chartered Institute of Bankers of Nigeria [CIBN] (2014) Code of Corporate Governance on conducts expected of banks relating to Terms and Conditions, which by extension border on effective communication, transparency and accountability; and analysis of descriptive statistics was done. Customers rated Accountability higher than both Transparency and Effective Communication in the activities of the banks. The least rating was on Transparency. This suggests that there is a higher need to improve on transparency in banks, followed by effective communication. Banks should consider enhancing the current framework for communication and disclosure. An extended disclosure framework will improve customers perception of transparency.

Keywords: Customers, Perception, Terms, Conditions, Corporate Governance

1.0 INTRODUCTION

1.1 Background of the Study

This study starts from the premise that banks ought to be committed to effective communication, transparency and accountability. These are considered as the three pillars of corporate governance. Corporate governance deals with issues relating to global best management practices. In banks one of such issues relate to how customers as stakeholders perceive the responsibility of management to design and implement appropriate terms and conditions defining the customer-banker relationship. The constructs which are here considered to be the three pillars of corporate governance can be adapted to the three requirements of CIBN (2014) Code of Corporate Governance in Nigeria regarding provisions on Terms and Conditions for bank customers.

First is the requirement that the bank provides clearly written and legally enforceable terms and conditions expressed in simple language on the various types of financial products and services offered by them. This essentially has to do with effective communication, a key factor in corporate governance. Palker (2017) noted that clear communication within an organization is critically important in order for corporate governance structures to succeed.

The second provision in the CIBN (2014) Code of Corporate Governance is that which provides that the bank gives adequate notice to customers about any change in the terms and conditions relating to financial products and services offered.

This provision can be related to transparency, also a key factor in corporate governance. The goal of disclosure is transparency, and the agency theory is best applied in a situation of full disclosure and transparency in all the agent's dealings. Fung (2014) said transparency and disclosure are essential elements of a robust corporate governance framework.

The third provision in the CIBN (2014) code required that the bank sends to the customer comprehensive statements of accounts at regular intervals or as may be agreed in order to enable the customer manage his accounts effectively. This can be related to Accountability, also a key factor in corporate governance. It may be difficult to clearly define what accountability entails. It is however a continuation of the confrontation between agency and stakeholder theories (Berle, 1932). According to Mosunova (2014), Accountability is quintessence of any corporate governance debate despite that there is no unified doctrine on what accountability consists of. The bottom line in the foregoing provisions is the need for proper disclosure and transparency in the customer-banker relationship. It is believed that effective communication, transparency and accountability promote confidence and results in a stable financial system. These provisions should therefore be promoted among Nigerian banks in order to have a stable banking industry, more so that these provisions are designed to promote customer service excellence in the industry. Poor customer service has been a major problem affecting the stability and growth of the industry

(Williams, Ogege & Ideji, 2014). Akinyomi (2012) examined the relevance of corporate governance in Nigerian banks and attributed the failure of banks and inability to manage expansion to poor corporate governance relating to disclosure, transparency and accountability issues. A customer's assessment of banks commitment to these ideals would be instructive, and serve as a primer for assessing the governance practices of banks and provide bases for advancing recommendations that would place the banks on a growth path.

1.2 Statement of the Problem

The series of bank failures reminiscent of pre-consolidation scenario were attributed to weak regulations and brought about questions as to why Nigerian banks kept experiencing these corporate governance failures in spite of new corporate governance codes. The underlying problem relates to the challenges of corporate governance which includes the process of determining the right standards, establishing the right framework for complying with standards and enforcing or maintaining standards. The challenges of corporate governance in banks can be ascertained from the constituents of banking functions and activities, and determining which functions exert more challenges on governance standards.

A critical area is that which relates to terms and conditions guiding the customer-banker relationship. The terms and conditions are here narrowed down to the three pillars of corporate governance as follows: Effective Communication,

Transparency and Accountability. It would appear that the banking industry is not sufficiently committed to these governance ideals considering history of instability in the industry. Poor corporate governance saw the failure of several banks in the past, which resulted in the reduction of nearly 80 banks in 2005 to 25 mega banks, and of recent the withdrawal of the license of a failed bank in 2018.

One of the competitive forces for an organization (Porter, 1980) is the bargaining power of buyers or customers. If the customers and banks do not strike a nexus as to expectations and actions, the level of commitment to these pillars of corporate governance will always be questionable, as it is evidenced in the Nigerian banking industry. Until the customers can assess the bank's commitment to these governance ideals, and the banks ride on the experience from customer's feedback, it would be difficult to continually reform the system.

1.3 Research Question

What is the assessment of customers on the commitment of Nigerian banks to governance codes relating to Customers' Terms and Conditions?

1.4 Objective of the Study

To determine customers' perception of how banks are committed to governance codes relating to Customer's Terms and Conditions.

1.5 Justification of the Study

To entrench corporate governance principles in banks, there is need to adopt

some governance measures and to determine how banks perform on these measures. A measure of performance is essential for control purposes. Besides, assessing the bank's commitment would throw up issues on areas where banks are particularly non-compliant and may lead to reasons for non-compliance and recommendations on how governance challenges can be overcome.

2.0 LITERATURE REVIEW

2.1 Conceptual Review

2.1.1 Effective Communication

The essence of communication is not just to pass a message. It should include a feedback mechanism which would be indicative of the interpretation given by the customer and any proper follow up action required of the bank. The communication process should be responsibly handled and should provide for clarity, enforceability and knowledge of products and services. Effective communication is a necessary component of corporate governance. According to Thiele-Long (2016), the problem with corporate governance is that its strength lies wholly upon the extent to which it is communicated clearly, effectively and continuously throughout the business, be it staff hand books, training, management structure or communications with stakeholders.

There will be a disconnect between the bank and its stakeholders if communication is lacking. Takwira (2011) said many of the governance problems we see or hear about are an embodiment of disconnects between and among

stakeholders. He further said the principles of fairness, inclusiveness, transparency, accountability, rule of law is all relational and communication based. Also referring to the link between communication and governance, Gutierrez-Garcia (2008) noted that the way communication is organized, its presence at management level, and the responsibility it assures are some of the facts with a direct relation to the link between communication and governance. In the process of carrying out its task, corporate communication establishes and maintains reputation and it is responsible for shaping of the external presentation of a company; as such it is an important function of corporate governance in terms of reputation management (Nobel, 2006).

2.1.2 Transparency

Transparency is critical to effective corporate governance, and promotes growth and development. Gilson (2000) said effective corporate governance and an obligation of transparency are necessary conditions for economic development. Also, according to Hermalin and Weisbach (2007) an objective of many proposed corporate governance reforms is increased transparency. The goal has been relatively uncontroversial, as most observers believe increased transparency to be unambiguously good.

Transparency means leaving nothing to hide. It allows its processes and transactions observable to outsiders. Roman (2017) said it makes necessary disclosures, informs everyone affected about its decisions, and complies with

legal requirements.

2.1.3 Accountability

It takes more than transparency to build integrity as a company. It also takes accountability. Mosunova (2014) said Accountability is quintessence of any corporate governance debate despite that there is no unified doctrine on what accountability consists of. Accountability has to do with taking responsibility. According to Roman (2017), shareholders are deeply interested in who will take the blame when something goes wrong in one of a company's many processes. Ribstein (2005) also said managers accountability to shareholders and corporation's responsibility to society are two important objectives of corporate governance. Accountability is best understood as a norm of governance, stipulating particular modes of wielding power and of responses to power (Licht, 2002). Stakeholders expect powerholders to provide full disclosure and be liable for misdeeds.

2.1.4 Corporate Governance

In every organisation, there is a burden of responsibility placed on both managers and owners. This is perhaps more pronounced in the corporate world where ownership is distinct from control. Businesses do not exist in isolation. The inter-play of both internal and external forces has implications for the survival and success of businesses. While internal forces have more to do with structures (in the organisation), external forces relate to external environmental factors. These forces would usually be managed with deference to organisational policies,

common rules of thumb and generally acceptable best practices. This serves as a primer to the concept of corporate governance. The possibility of conflict between investors and managers in the use of corporate form (Wells, 2010) further underscored the importance of corporate governance. Cheffins (2013) noted that the concept however came into vogue in the 1970s and has now become the subject of debate worldwide by academics, regulators, executives and investors. The analysis of the inter-relationship between these stakeholders is likely to be conducted through the conceptual prism of corporate governance.

Definitions of corporate governance vary widely. Central to all definitions are issues of corporate social responsibility, adequate disclosures, conformity with laws and guidelines, and active participation of stakeholders in corporate decision making. Claessens and Yurtoglu (2012) identified two distinct categories in explaining the concept of corporate governance as the behavioural pattern which explains the actual behaviour of corporations as measured by performance, efficiency, growth, financial structure and treatment of shareholders and other stakeholders, and the normative framework which relates to the rules under which firms operate with the rules coming from such sources as the legal system, financial markets and factor markets. Drawing from this analysis, we can deduce corporate governance from behavioural pattern as well as the normative framework, with the normative fuelling and guiding the behavioural pattern. Good corporate

governance sets out the rules and practices that govern the relationship between the stakeholders in corporations. It ensures transparency, fairness and accountability and is a pre-requisite for the integrity and credibility of organizations.

2.1.5 Framework

The three pillars of corporate governance are Effective Communication, Transparency and Accountability. Effective communication requires clarity

of information, enforceability of terms and conditions, and knowledge of products and services. Transparency requires that adequate notice of changes in terms and conditions be made, and accountability ensures that regular statements of accounts and comprehensive accounts are provided. These three constructs shape the disclosure of Terms and Conditions, and results in Corporate Governance (Figure 1).

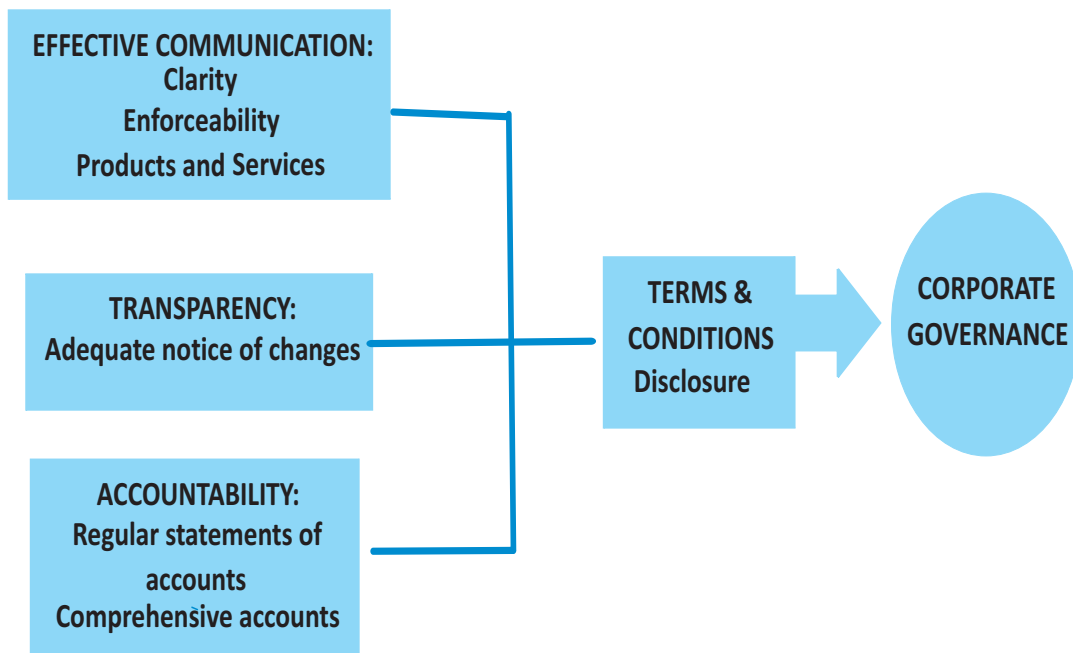


Figure 1: Conceptual Framework of the Three Pillars of Corporate Governance: Effective Communication, Transparency and Accountability

Source: Researchers (2018)

2.2 Theoretical Review

Eisenhardt (1989) traced the origin of the agency theory to the periods during the 1960s and early 1970s when economists explored risk sharing among individuals or groups and noted that the theory broadened this risk sharing literature to include the so-called agency problems that occur when cooperating parties have different goals and division of labour. The way conflicts play out and are resolved would be indicative of the role of the board, and should also necessarily impact on the performance of the firm. The relationship between the board of directors and shareholders can aptly be situated within the agency theory.

Governance is expected to protect interest of shareholders. Tirole (2001) noted that a classical implication of the corporate finance literature is that firms with low agency costs are more likely to have access to cheap finance, and thus be more profitable. The implication of this is that entrenching corporate governance ideals promote growth. Since Freeman (1994) posed the two key questions on what the purpose of the firm is, and what responsibility does management have to stakeholders, the stakeholder theory has been instrumental in discussing the responsibilities of management to stakeholders. Stakeholder theory addresses issues of morals and values in an expanded view of those to whom an organization has fiduciary duty.

2.3 Empirical Review

The themes in the CIBN (2014) governance codes are quite similar to the

UK's Corporate Governance Code, published by the Financial Reporting Council. The code makes it clear that there is an expectation that there are effective systems of stakeholder communication in place to ensure transparency and accountability (Thiele-Long, 2016). A balance of effective communication and human relations has been found to be the waterway to sound governance (Takawira, 2011). Communication strategies must be realigned to aid governance development and stakeholder goals. The Organisation for Economic Cooperation and Development in 2004 considered the issue of information and transparency in corporate governance and said a strong disclosure regime that promotes real transparency is a pivotal feature of market-based monitoring of companies and is central to shareholder's ability to exercise their ownership rights on an informed basis (Gnecchi, 2006).

In a study on the role of communication on corporate governance, Gnecchi (2006) concluded that it remains unavoidable to consider integrated corporate communication as the essential tool to construct and maintain congruous relations with the different categories of stakeholder who have a direct or indirect interest in the company. Also contributing to the discourse on the pivotal role of effective communication, Nalina and Panchanatham (2016) in a study on the importance of communication and culture concluded that the implementation of effective corporate governance joined with communication and diversity awareness will enhance revenue and market share, as

well as the image of the business. Effective communication should also go beyond internal communication. In a study of how boards use corporate communication for strategic management, Milas, Boric & Zigic (2014) found that there is a disproportion in the use of basic function of corporate communications where the use of internal communication is more frequent than that of public relations.

It has been established that transparency is equally critical to corporate governance (Lowenstein, 1996; Hermalin & Weisbach, 2007; Fung, 2014). A subtle divergence is in Haat, Rahman & Mahenthiran (2008) when they found in a study of transparency and corporate governance in Malaysian companies, that performance is not associated with the level of disclosure and timely reporting. The data used however covered only one-year period and their conclusion that transparency is not a significant mediating variable between corporate governance and performance may be disputed. In a comparative study of Enron and Cadbury, Muraina, Okpara & Ahunanya (2010) underscored strongly the importance of transparency in corporate governance and identified the negative effects of poor transparency including management instability and poor growth.

It takes more than transparency to build integrity as a company. According to Roman (2017), it also takes accountability, which can also mean answerability or liability. Ribstein (2005) further said managers accountability to shareholders and corporation's responsibility to society are two important objectives of corporate

governance. Accountability is best understood as a norm of governance, stipulating particular modes of wielding power and of responses to power (Licht, 2002). Societies that endorse accountability norms expect power holders to provide full disclosure and be liable for misdeeds.

3.0 METHODOLOGY

3.1 Source of Data and Method of Data Collection

This study used primary data obtained from the administration of questionnaire to customers of banks. The questionnaire was adapted from the provisions of the CIBN (2014) Code of Corporate Governance on conducts expected of banks relating to Terms and Conditions, which by extension border on effective communication, transparency and accountability. The nature of the questionnaire used for this study was a five-point Likert scale, ranging from "Very Large Extent" to "Very Low Extent" (5=Very Large Extent, "VLE", 4=Large Extent, "LE", 3=Neutral, "N", 2=Low Extent, "Low", and 1=Very Low Extent, "Very Low") to reflect the agreement of customers on banks commitment to the itemized governance codes related to Terms and Conditions.

3.2 Population and Sample Size Determination

The study adopted the total number of BVN registered customers in 2017 (Udo, 2017) as the population of customers. The customer sample size for each bank is estimated to be 400 from the total of 20,833,635 BVN registered customers. Through purposive sampling, the study

limited its coverage of banks to the top 13 Nigerian banks which are listed among the leading 1000 global banks in 2014 (Gabriel, 2014). They are: Zenith Bank, Guaranty Trust Bank, First Bank, Access Bank, United Bank for Africa, Fidelity Bank, Ecobank, Skye Bank, First City Monument Bank, Diamond Bank, Stanbic IBTC Holdings, Standard Chartered Bank Nigeria and Union Bank of Nigeria. Response rate was generally high because administration was by direct interface with customers through the customer service unit of each sample bank.

4.0 DATA AND RESULTS

The total number of questionnaires completed and returned is as shown in Table 1. The mean scores for the banks for each of the three constructs of the study [Terms and Conditions 1 (TCC 1) for Effective Communication; Terms and Conditions 2 (TCC 2) for Transparency and Terms and Conditions 3 (TCC 3) for Accountability] and other critical statistics are presented in Table 2.

Table 1: Questionnaires Distribution by Banks

BANK	QUESTIONNAIRES
Access	394
Diamond	396
Ecobank	398
FCMB	350
Fidelity	348
First Bank	396
GTB	400
Skye	322
Stanbic IBTC	367
Standard Chartered	381
UBA	181
Union	319
Zenith	399
TOTAL	4651

Source: Researchers (2018)

Table 2: Statistics on Effective Communication, Transparency and Accountability

Bank	TCC1	TCC2	TCC3	Average
Access	4.4077	4.4143	4.4194	4.4138
Diamond	1.6354	1.5975	1.7215	1.651467
Ecobank	4.0578	4.0452	4.0736	4.058867
FCMB	4.194842	3.988506	4.276657	4.153335
Fidelity	4.1691	3.9674	4.0152	4.050567
First Bank	1.6354	1.5975	1.7215	1.651467
GTB	4.2161	4.0977	4.1303	4.148033
Skye	4.062112	4.115265	4.133956	4.103778
Stanbic IBTC	4.3306	4.23224	4.41484	4.325893
Standard Chartered	3.9814	4.0212	3.9867	3.996433
UBA	4.237288	4.233333	4.206704	4.225775
Union	4.053292	4.056426	4.216301	4.108673
Zenith	3.9599	3.9373	3.8722	3.923133
Other Statistics:				
Maximum	4.4077	4.4143	4.4194	
Minimum	1.6354	1.5975	1.7215	
Mean	3.7647	3.7157	3.7838	3.7547
Standard Deviation	0.9539	0.9490	0.9285	

Source:Field Survey (2018)

5.0 FINDINGS, CONCLUSION AND RECOMMENDATIONS

Customers rated Accountability higher than both Transparency and Effective Communication in the activities of the banks. The least rating was on Transparency. This suggests that there is a higher need to improve on transparency in banks, followed by effective communication. The highest score was on Accountability at 4.4194 with a mean score of 3.7838, followed by Transparency at 4.4143 but with the least mean score of 3.7157. Effective Communication had a maximum score of 4.4077 with a mean score of 3.7647.

On the whole, customers gave an impressive score of 3.7547 (75%) on the combined performance of these banks on these three pillars of corporate governance. There are however still some weak links among the banks. The standard deviation was highest with Communication (0.9539) suggesting more divergent scoring. This is indicative of the fact that customers have more varied needs on Communication. This was followed by Transparency with a standard deviation of 0.9490 and Accountability with a standard deviation of 0.9285. This confirms earlier deduction that customers are generally more satisfied with Accountability, but expressed more concern on Transparency.

In Conclusion, customers have direct impact on organisational decisions and activities. Banks have to retain their customers and win new ones if they are to remain in the market. Customer service excellence is central to corporate governance, and this thrives when there is an effective feedback mechanism for customers.

It is recommended that banks should re-appraise their commitment to these three

pillars of corporate governance, and particularly improve on transparency. There can still be improvement on banks performance on these indices, especially on matters of transparency and communication. Banks should consider enhancing the current framework for communication and disclosure. An extended disclosure framework will improve customers perception of transparency.

REFERENCES

- Akinyomi, O.J. (2012). Relevance of corporate governance in Nigerian banks. *International Journal of Development and Management Review*. Vol.7, June.
- Applied Corporate Governance (2018). Rule 5: The importance of corporate communication. Tangleing International Ltd. <https://www.applied-corporate-governance.com/best-corporate-governance-practice-importance-of-corporate-communication>
- Berle, A.A. (1932). For whom corporate managers are trustees: A note. *Hav. L. Rev.* 1365 45(80)
- Cheffins, B.R. (2013). The history of corporate governance, Oxford handbook of corporate governance, Oxford University Press.
- CIBN (2014). Code of corporate governance. Chartered Institute of Bankers of Nigeria, Lagos.
- Classens, S. & Yurtoglu, B.B. (2012). Corporate governance in emergency markets: A survey. *Emerging Markets Review* available at <http://dx.doi.org/10.1016/j.ememar.2012.03.002>.
- Eisenhardt, K.M. (1989). Agency Theory: An assessment and review. *The Academy of Management Review*, 14(1). pp 57-74
- Freeman, R. E. (1994). The Politics of Stakeholder Theory. *Business Ethics Quarterly*. Vol.4 (4). pp 409-421.
- Fung, B. (2014). The demand and need for transparency and disclosure in corporate governance. *Universal Journal of Management* 2(2). Pp 72-80.
- Gabriel, O (2014). 13 Nigerian banks make top 1000 world banks ranking. Retrieved from : <https://www.vanguardngr.com/2014/07/13-nigerian-banks-make-top-1000-world-banks-ranking>
- Gilson, R.J. (2000). Transparency, corporate governance and capital markets. Latin American Corporate Governance Round table, Sao Paulo, Brazil, April 26-28.
- Gnecchi, F. (2006). Corporate governance communication. *Emerging Issues in Managements n.i.* <https://www.unimib.it/symphonya>
- Gutierrez-Garcia, E. (2008). Corporate corporation in corporate governance: Why should it be managed strategically? The Spanish case. EVPRERA 2008 Congress. Institutionalising Public Relations and Corporate Communication, Milan. 16-18 October.
- Haat, M.H., Rahman R.A. & Mahenthiran S. (2008). Corporate governance transparency and performance of Malaysian companies. *Managerial Auditing Journal*. Vol.23, Issue 8. pp 744-778.
- Hermalin, B.E. & Weisbach M.S. (2007). Transparency and corporate governance. NBER Working paper No. 12875. <https://www.nber.org/papers/w12875>
- Licht, A.N. (2002). Accountability and corporate governance. Available at SSRN <https://ssrn.com/abstract=328401>
- Lorenstein, L. (1996). Financial transparency and corporate governance: You manage what you measure. *Columbia Law Review*, Vol.96, No.5. pp 1335 1362.
- Milas, Z., Boric, S. & Zigic, I. (2014). The

- role of corporate communications in the corporate governance process-example of insurance industry in Croatia. Proceedings of the 2nd International OFEL Conference on Governance, Management and Entrepreneurship, 4th -5th April, 2014, Dubrovnik, Croatia.
- Mosunova, N. (2014). The content of accountability in corporate governance. *Russian Law Journal*. Vol.1, Issue 3.
- Muraina, A., Okpara, E. & Ahunanya, S. (2010). Transparency in corporate governance: A comparative study of Enron, USA and Cadbury Plc, Nigeria. *The Social Sciences*, 5. pp 471-476.
- Nalina, B. & Panchanatham, N. (2016). Corporate governance- The importance of communication and culture. *Indian Journal of Science and Technology*. Vol. 9(3)
- Nobel, P. (2006). Corporate governance and unternehmenskommunikation. In unternehmens-kommunikation. Kommunikations management aus sicht derunternehmensfuhrung. Schmid, B., Lyczek, B. (eds). Gabler: Wesbaden, pp 469-488.
- Palker, M. (2017). Communication is key in corporate governance. Global Knowledge Gateway. <http://www.ifac.org/global-knowledge-gateway/governancy-discussion/communication-key-corporate-governance>.
- Porter, M.E. (1980). *Competitive strategy: Techniques for analyzing industries and competitors*. Free Press, New York.
- Ribstein, L.E. (2005). Accountability and responsibility in corporate governance. VCLA - Sloan Research Program on Business Organizations conference on the Means and Ends of corporations on Jan.28 and 29.
- Roman, A. (2017). The three pillars of corporate governance Convene. <https://www.azeuconvene.com/three-pillars-of-corporate-governance>.
- Takawira, G. (2011). Effective communication enhances good governance. The Herald. <https://www.herald.co.zw/effective-communication-enhances-good-governance/>
- Thiele-Long, B. (2016). The importance of communication in corporate governance. Pagefield communication. <https://www.pagefield.co.uk/insight/the-importance-of-communication-in-corporate-governance/>
- Tirole, J. (2001). Corporate governance. *Econometrica*. 69(1), p8
- Udo, B. (2017). BVN: over 20.8 Million customers enrol 40 million bank accounts, Premium Times. <https://www.premiumtimesng.com/news/top-news/192328-bvn-over20.8millioncustomers-enroll-40million-bank-account.html>.
- Wells, H. (2010). Principles of corporate governance. *Organisation for Economic Cooperation and Development* (OECD) Paris.
- Williams, H.T., Ogege, S. & Ideji, J.O. (2014): An empirical analysis of effective customers service on Nigerian banks profitability (A Queuing and Regression Approach). *Asian Economic and Financial Review*. Vol. 4(7) pp864-876.

Appendix I: Questionnaires for Customers

INSTRUCTION: Please rate your assessment of each point according to one (any) of the following bases: VLE(Very Large Extent); LE (Large Extent);N (Neutral); Low (Low Extent); Very Low (Very Low Extent).

S/ N	Questions [Terms and Conditions to Customers]	VLE	LE	N	Low	Very Low
1	To what extent has the bank provided clearly written and legally enforceable terms and conditions, expressed in simple language, on the various types of financial products and services offered by the bank.					
2	To what extent has the bank given adequate notice to customers about any change in the terms and conditions relating to financial products and services offered.					

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ABSTRACT

This study investigated the effects of monetary policy on the profitability of deposit money banks in Nigeria for a period of ten (10) years spanning 2008 to 2017. A systematic collation of time series and cross-sectional data pooled into a panel data set was used to empirically determine the effects of monetary policy on the profitability of deposit money banks in Nigeria. The study adopted Johansen's multivariate co-integration procedure and the co-integration test was based on error correction model (ECM). The test for stationary or unit roots employed was the Augmented Dickey-Fuller (ADF) test performed on the variables. Hypotheses were formulated and tested using the panel regression. The study discovered that the monetary policy proxied by Monetary Policy Rate (MPR) and Cash Reserve Ratio (CRR) had significant effects on profitability of deposit money banks in Nigeria. It was recommended that Central Bank of Nigeria should adjust Monetary Policy Rate and Cash Reserve Ratio in such a way that it will allow for increased liquidity to enable the deposit money banks discharge their lending and investment functions effectively. Monetary policy should be complimentary to fiscal policy and should be used together to have complimentary results.

Keywords: *Monetary Policy, Deposit Money Banks, Profitability, Nigeria*

1.0 INTRODUCTION

1.1 Background of the Study

The Banking sector forms the basis for financial flow within an economy. They intermediate between the surplus-saving unit and the deficit-spending unit. This interaction lubricates the economy and enhances the performance of the economy towards growth and development. The level of investments and capital accumulation in an economy are largely determined by the level of banking sector development (Igbinsosa&Ogbeide, 2015). It is important to note that there is a need for the government to influence employment level, the rate of inflation or economic growth and the balance of payments; in order to achieve this, it will implement some kind of monetary policy, such policies are structured or designed to influence both the supply of money and its price (Jhingan, 2006).

The responsibility of formulating monetary policy in Nigeria rests with the Central Bank of Nigeria. These policies are anchored on the fact that it can influence the Credit, Profitability, Solvency, Stability and Risk behavior of Deposit money banks, effectively and efficiently. This will in turn impact positively on households, businesses and the economy at large (Uwubanmwun & Ikponmwosa, 2015). Banks in playing their role of financial intermediation is seen as effective institution in the use of monetary policy, which relies on the control of money stock in order to influence financial and economic activities. The extent to which monetary policy influences financial and economic activities has been

widely argued over the years. This is particularly relevant in the Nigeria setting where the Banking industry is struggling to have stable banks, and the money and capital market are not so developed. The Nigerian government has over the years adopted various instruments of monetary policy to regulate and control the cost, volume, availability and direction of money credit and also the performance of Deposit money banks.

Nwannebuike (2012) opined that Profitability is the driven factor for deposit money banks activities. Profitability is the state or condition of yielding a financial profit or gain (Business dictionary). Banks engage in a variety of products and services for the achievement of profit or to be profitable. The commonest and most important of these activities is lending to borrowers, who are basically raisers of funds. These fund raisers are expected to payback the Principal and an amount known as Interest on the funds given to them, this interest in all bank services forms the bedrock of profitability in the banking sector. Proxies for measuring profitability include Return on Equity (ROE), Profit after Tax, Sales Volume.

The link between monetary policy and bank profitability has gained prominence following the great financial crises of 2008. Also there is a widespread agreement that central banks aggressive response at the early stages of the crises was critical for helping prevent a financial and economic meltdown. One of such side effects is the negative effect of a low interest rate structure on bank profitability and hence on the soundness of the banking

sector. To this effect this work intends to investigate the effects of CBN Monetary policy on the Profitability of Deposit money banks taking Monetary Policy Rate (MPR), and Cash Reserve Ratio as Proxies for measuring Monetary Policy and Return on Equity (ROE) and Profit after Tax as Proxies for measuring Bank Profitability.

Rao (2006) classified monetary policy as targets: and as targets they are distinct from objectives, and are anomalously proximate goals. These targets are either operating targets or intermediate targets, intermediate are variable, although thought to affect the ultimate objective of monetary policy and are not controlled directly by the Central bank. Although Central banks cannot use monetary policy instruments directly to intermediate target, they can use them to affect operating targets, such as cash reserve and short-term interest rates, which influence movement in intermediate variables.

In Nigeria, as identified by Ajayi and Atanda (2012), The Monetary policy rate (MPR) was adopted by the monetary policy committee as a replacement for the minimum rediscount rate (MRR) in 2006, shortly after the recapitalization in 2004. They further emphasized that the reason was to influence interest rate in line with the monetary policy conditions. Recently in its final monetary policy committee meeting for 2017, the CBN held its main interest rate, the Monetary policy rate (MPR) unchanged at 14%, Cash reserve ratio still at 22.5%

1.2 Statement of Problem

Banks must make profit at the end of each

financial year to stay in business. This invariably means that profit is essential for every financial intermediary involved in financial intermediation, especially Deposit Money Banks. It is perhaps the evidence of their liquidity and safety of customer's funds and this also has great impact on the country's economy. This profit is also affected by the monetary policy rate and the amount of cash reserve as proposed by the Central Bank in their CBN regulation (Uwubanmwun & Ikponmwosa, 2016).

The recent review on the monetary policy rate and the cash reserve ratio was geared towards checking the rate at which inflation was growing. As identified by the Monetary Policy Committee (MPC) the review will cause individuals, households and suppliers of funds to increase their propensity to save and also reduce the rate at which deposit money banks disburses loans. The review on the cash reserves will reduce the amount of idle cash in deposit money banks vaults and also check the Deposit money bank's lending. This Monetary policy tools used by the apex bank is intended to contract the supply of money in the bid to check the persistent growth in Inflation (MPC, 2016).

In spite of this, the review seems to have deterred investments and has hampered industrial growth due to high cost of capital. Small and medium scale industry (SME's) can no longer access funds easily and this has consequently posed serious danger to the economy as banks which studies have shown to be the livewire of the economy can no longer effectively discharge their role as a result of such

stringent policy, thereby adversely affecting their profitability.

1.3 Objectives of the Study

The General objective of this study is to determine the effect of monetary policy on the profitability of deposit money banks in Nigeria. However, this study specifically seeks to:

1. Investigate the effect of monetary policy rate (MPR) on deposit money bank's profit after tax
2. Examine the effect of monetary policy rate (MPR) on deposit money bank's return on equity (ROE)
3. Investigate the effect of cash reserve ratio (CRR) on deposit money bank's profit after tax.
4. Ascertain the effect of cash reserve ratio (CRR) on deposit money bank's return on equity (ROE)

1.4 Research Hypotheses

This Research work is anchored on the following Null hypotheses (H_0)

- H_{01} : Monetary policy rate (MPR) does not have any significant effect on deposit money bank's profit after tax.
- H_{02} : Monetary policy rate (MPR) does not have any significant effect on deposit money bank's return on equity (ROE).
- H_{03} : Cash reserve ratio (CRR) does not have any significant effect on deposit money bank's profit after tax.
- H_{04} : Cash reserve ratio (CRR) does not have any significant effect on deposit money bank's return on equity (ROE).

1.5 Justification of the Study

The justification for banks in the sample includes:

- i. The five banks have been rated the topmost five banks in Nigeria by the Fitch rating (2014). These banks have also made the list of the first 25 and 500 banks in Africa and the world respective
- ii. The banks under review have been largely homogenous to the extent that their ownership structures are significantly unaffected by the spate of mergers and acquisitions that characterized the revolution in commercial banking in Nigeria since 2004 and 2011.
- iii. The five banks relatively account for over fifty percent of the total deposit liability in the industry. As at December 2011, the total deposit in the industry was about N10.99 trillion, out of which the five selected banks accounted for N6.17 trillion, representing 56.13% of the total deposit.
- iv. And recently, have been the top rating banks in Nigeria and also rated among top 500 banks in the world as evidenced by the 2017 Bankers magazine, financial times group brand finance.

2.0 LITERATURE REVIEW

2.1 Conceptual Review

Monetary policy is defined in the Central Bank of Nigeria Brief as “the combination of measures designed to regulate the value, supply and cost of money in an economy, in consonance with the expected level of economic activity.” (CBN) Brief

1996/2003. Wrightsonan (1976) also viewed monetary policy as a deliberate effort by the monetary authorities (Central Bank) to control the money supply and credit conditions for the purpose of achieving certain broad economic objectives. Put differently, monetary policy refers to the actions of the Central Bank to regulate the money supply which could be through discretionary monetary policy instruments such as the open market operation(OMO), discount rate, reserve requirements, moral suasion, direct control of banking system credit, and direct regulation of interest rate (Loayza, & Schmidt-hebbel, 2002). It can be described as the art of controlling the direction and movement of credit facilities in pursuance of stable price and economic growth in an economy (Chowdhury, Hoffman & Schabert, 2003). Monetary policy is a major economic stabilization weapon often use by the apex bank to regulate and control the volume, cost of availability and direction of money and credit in an economy in order to achieve some specified macroeconomic policy objectives.

The objectives and goals that the central bank seeks to achieve generally are low inflation (usually targeted), protection of value of currency, full employment and sustainable economic output (economic growth). Monetary policy covers the monetary aspect of the general economic policy which requires a high level of co-ordination between monetary policy and other instruments of economic policy of the country.

The control of the money supply allows the

Central Bank to either adopt “a tight money” (contractionary) monetary policy or an “easy money” (expansionary) monetary policy. And thus in the short to medium-run to affect the fluctuation in output in the economy. In order to achieve this, they can use either a contractionary or stringent or tight monetary policy or an expansionary or money ease policy Ugwanyi (1997). The overall effect of an expansionary monetary policy is to increase the supply of money or reduce the cost of money in the economy so as to stimulate an increase in economic activities and cause the general public to have more money in their hands. While a contractionary stringent or tight monetary policy is used to reduce the supply of money or increase cost of money in the economy primarily through banks and other financial institution by constraining the growth or ability of the deposit money banks to grant further credits, in a bid to control inflation and price level.

2.2 Theoretical Review

2.2.1 Classical Theory

The classical theory states that the main function of money is to act as a medium of exchange. It is to determine the general level of prices at which goods and services will be exchanged. This relationship between money and the price level is explained in terms of the quantity theory of money. The widely accepted approach to monetary economics was known as the quantity theory of money, used as part of a broader approach to micro and macro issues referred to as classical economics from the works of Irving fisher who lay the foundation of the quantity theory of money

through his equation of exchange. The classical theory of money states that the price level is a function of the supply of money. The classical school evolved through concerted efforts and contribution of economists like Jean Baptist Say, Adam Smith, David Richardo, Pigu and others who shared the same beliefs. The classicists believed that there was always full employment in the economy. At the same time, they recognized the existence of unemployment in the event of downward rigidity of money wages; a situation which could be corrected by an expansionary monetary policy.

If the quantity of money is doubled, the price level will also double and the value of money will be one half. Fisher's theory also known as equation of exchange is stated thus,

$$MV=PT \dots\dots\dots (1)$$

Where:

M= actual money stock or money supply, V= the transaction velocity of circulation of money, P= the average price level, T= the real volume of all market transactions made during a period of time. Fisher posited that the quantity of money (M) times the velocity (V), must equal average price level (P) times the aggregate transaction (T). The equation equates the demand for money (PT) to the supply of money (MV). In the equation, T is better replaced with Q "quantity of goods involved" hence the Fisherian equation can be written as $MV = PQ \dots\dots\dots (2)$ Fisher further stated that the average price in the economy (P) multiplied by the amount of transaction (T) when divided by the money

stock (M) gives us a volitional element called the average turnover of money or money velocity (V), that is $PT/M = V$.

2.2.2 Keynesian Theory

Keynes did not agree with the classical view that the supply of money influenced the price level directly and that the economy always stayed at full employment level.

In 1936, John Maynard Keynes published his "General Theory of Employment, Interest and Money" and initiated the Keynesian Revolution. However, the role of money in an economy got further elucidation from (Keynes, 1930 P. 90) and other Cambridge economists who proposed that money has indirect effect on other economic variables by influencing the interest rate which affects investment and cash holding of economic agents. Keynes maintained that monetary policy alone is ineffective in stimulating economic activity because it works through indirect interest rate mechanism. In the Keynesians theory, monetary policy plays a crucial role in affecting economic activity. It contends that a change in the supply of money can permanently change such variables as the rate of interest, the aggregate demand, and the level of employment, output and income. In a situation of unemployment, Keynes advocated a cheap monetary policy. So when the supply of money is increased, its first effect is on the rate of interest which tends to fall.

The monetary mechanism of Keynesians emphasizes the role of money, but involves an indirect linkage of money with

aggregate demand via the interest rate as symbolically shown below:

OMO R MS r I
GNP

Where: OMO = Open Market Operation, R = Commercial Bank Reserve, MS = Stock of Money, r = Interest Rate, I = Investment, GNP = Gross National Product

Where the economy is initially at equilibrium and there is open market purchase of government securities by the Central Bank of Nigeria (CBN), this open Market Operation (OMO) will increase the commercial banks reserve (R) and raise the bank reserves. The bank then operates to restore their desired ratio by extending new loans or by expanding bank credit in other ways. Such new loans create new demand deposits, thus increasing the money supply (MS).

2.2.3 Monetarist Theory

The Modern Monetary theory holds a completely different view. The monetarist theory was propounded by Milton Friedman in 1956. They believe that when the central bank purchases securities in open market, it sets in motion substitution and wealth effects, as the public portfolio consists of a wide variety of assets such as bonds, equities, savings, mortgage, etc. These effects will ultimately increase aggregate money demand and expand output. Monetarists like Friedman (1956, 1963) emphasized money supply as the key factor affecting the wellbeing of the economy. Thus, in order to promote steady of growth rate, the money supply should

grow at a fixed rate, instead of being regulated and altered by the monetary authorities. The monetarist introduces an additional factor in the determination of interest rate, which is price expectation; an increase in supply of money has a liquidity effect on income effect and price effect.

The monetarist conception of money transmission mechanism can be summarized below:

OMO MS Spending GNP

The monetarist argument centers on the old quantity theory of money. If velocity of money in circulation is constant, variation in money supply will directly affect prices and output or income (GNP), M. L. Jhingan, (Monetary Economics 6th Edition, P. 418 – 419). The monetarist postulates that change in the money supply leads directly to a change in the real magnitude of money. Describing this transmission mechanism, Friedman & Schwartz (1963) say an expansive open market operation by the Central Bank, increases stock of money, which also leads to an increase in commercial bank reserves and ability to create credit and hence increase money supply through the multiplier effect. In order to reduce the quantity of money in their portfolios, the bank and non-bank organizations purchase securities with characteristics of the type sold by the Central Bank, thus stimulating activities in the real sector.

2.3 Empirical Review

Gertler and Gilchrist (1994) conducted a study that specifically looked at how bank business lending responds to monetary

policy tightening. They found that bank's lending does not decline when policy is tightened. They concluded that the entire decline in total lending comes from a reduction in consumer and real estate loans.

Punita and Somaiya (2006) carried out a study on the impact of monetary policy on the profitability of banks in India between 1995 and 2000. The monetary variables were banks rate, lending rates, cash reserve system and statutory ratio, and each was regressed on banks profitability independently. Lending rate was found to exact positive and significant influence on banks' profitability, which indicates a fall in lending rates will reduce the profitability of the banks. Also, bank rate, cash reserve system and statutory ratio were found to have negative and significant effect on the profitability of banks. Their findings were the same when lending rate, bank rate, cash reserve system and statutory ratio were pooled to explain the relationship between banks profitability and monetary policy instruments in the private sector.

Amidu and Wolfe (2008) examined the constrained implication of monetary policy on bank lending in Ghana between 1998 and 2004. Their study revealed that Ghanaian banks' lending behaviour is affected significantly by the country's economic support and change in money supply. Their findings also support the finding of previous studies that the Central Bank prime rate and inflation rate negatively affect bank lending. Prime rate was found statistically significant while inflation was insignificant. Based on the firm level characteristics, their study

revealed that bank size and liquidity significantly influence bank's ability to extend credit when demanded.

Amassoma, Wosa&Olaiya (2011) they also analyzed the impact of monetary policy on macro-economic variables in Nigeria for the period 1986 to 2009 using the simplified ordinary least squared technique conducted with the unit root and co-integration test. They found that monetary policy has a significant effect on interest rate but it was insignificant in its effect on price instability. They concluded with the recommendation that there is need to align monetary policy with fiscal policy so as to maximize the growth potential of monetary policy.

Nwoko, Ihomeji&Anumadu (2011) investigated the impact of monetary policy on the economic growth of Nigeria covering the period of 1990 to 2011. They used multiple regression models as a main statistical tool for analyses. Results showed that CBN Monetary policy measures are effective in regulating both the monetary and real sector aggregates such as employments, prices, level of output and the rate of economic growth.

Uwubanmwen and Ikponmwosa (2015) examined the influence of monetary policy in determination of bank profit in Nigeria. They adopted a dynamic framework involving the Augmented Dickey Fuller (ADF), root unit testing, Johansen Co-integration procedure, Granger causality technique and an error correction model. Results reveal that monetary policy has a significant impact on bank's profitability in Nigeria. Particularly; monetary policy

rates, money supply, bank credit and investment. The impact of exchange rate was found to be positive and weak.

Based on the literatures reviewed monetary policy as an instrument of the CBN is targeted at guiding banks towards a direction the monetary authority envisions it to be. Most of the literatures on Monetary policy reviewed have focused their attention on monetary policy as it affects banks loan and advances, economic growth with insignificant number of literatures on banks profitability hence, a gap this research work seeks to fill. Moreover, there are few or insignificant literatures on the relationship between monetary policy and banks profit after tax / return on equity, which is an area this study seeks to further investigate.

3.0 METHODOLOGY

3.1 Data and Analysis

This study adopted an expo facto research design. As a result of being objective, the population for this study is the entire deposit money banks in Nigeria because the research is directed to deposit money banks in Nigeria. A sample was drawn from the entire population which constitutes five (5) deposit money banks in which include Zenith Bank, First Bank, Guarantee Trust Bank, Access Bank and United Bank for Africa, which according to Fitch rating (2014) have been rated the top five performing banks in Nigeria. The study adopted a purposive sampling technique, Secondary data was collected and used for the analysis and test of hypothesis formulated for this study. The secondary data for a period of ten (10) years spanning from (2008-2017) was used

reason being that the study wants to see how Nigerian banks profitability has been affected by monetary policy over the years, from the period of financial meltdown (2008) to (2017). Data for this study was collected from the documented information of National Bureau of Statistics, Central Bank of Nigeria, and the published annual financial statements of the five selected banks for a period of ten (10) years.

3.1.2 Unit Root Test

This study adopted the Augmented Dickey Fuller Test (ADF) for the testing procedure for unit root based on the following formula. ADF is applied to the model.

$$\Delta y_t = \alpha + B_{1t} + B_2 y_{t-1} + \sum_{C=1}^p \Delta y_{t-1} \alpha + E_t$$

Where α is a constant, B1 is the lag of the autoregressive process. The unit root test is carried out under the null hypothesis.

$H_0: B_2 = 0$ against

$H_1: B_2 < 0$

The Dickey Fuller's (DF) test statistics is

$$DF = \frac{B_2}{S(B_2)}$$

If DF is less than the critical value, then the null hypothesis is rejected and no unit root is present.

3.1.4 Variables of the Study

Monetary Policy Rate (MPR), Cash Reserve Ratio (CRR) as Proxies for monetary policy Profit after tax, Return on Equity (ROE) as Proxies for Banks profitability.

3.1.3 Model Specification

Model one: $PAIT = \alpha + \beta (MPR) + e$.

Model two: $ROE = \alpha + \beta (MPR) + e$.

Model three: $PAIT = \alpha + \beta (CRR) + e$.

Model four: $ROE = \alpha + \beta (CRR) + e$.

Where:

PAIT= Profit after Interest and Tax, ROE= Return on Equity, MPR = Monetary Policy Rate, CRR= Cash Reserve Ratio, α = Intercept, β = Beta, e = Error term.

Decision criterion is to accept H_0 : if p value is greater than 0.05 level of significance.

3.4 Data Presentation and Analysis

Table 1: Profit after Tax, Return on Equity, Cash Reserve Ratio and Monetary Policy Rate (2008 – 2017).

Year	First Bank		Zenith Bank		GTBank		UBA		Access Bank		Monetary Policies	
	PAT ₦'000	ROE %	PAT ₦'000	ROE %	PAT ₦'000	ROE %	PAT ₦'000	ROE %	PAT ₦'000	ROE %	CRR	MPR
2008	56,798.20	3.48	97,125.24	6.19	87,966.03	5.98	13,288.56	1.52	42,652.69	0.22	4.0	8.0
2009	60,223.44	3.69	102,547.52	6.53	94,469.40	6.42	13,775.76	1.60	46,534.93	0.23	5.0	9.5
2010	55,610.33	3.41	121,604.20	7.75	111,429.04	7.57	14,473.20	1.58	49,857.34	0.25	3.0	6
2011	39,672.00	2.43	102,540.60	6.53	94,319.94	6.41	13,449.00	1.46	44,614.97	0.22	4	7
2012	83,289.00	5.10	82,649.60	5.26	76,485.78	5.20	9,351.80	0.98	36,626.75	0.17	8	12
2013	76,853.00	4.71	95,318.00	6.07	85,545.51	5.81	5,121.00	0.60	26,211.84	0.15	12	12
2014	81,361.00	4.99	99,455.00	6.34	89,170.78	6.06	20,486.00	2.42	39,941.13	0.23	14	12
2015	2,816.00	0.17	105,663.00	6.73	94,308.12	6.41	18,035.00	2.13	65,868.77	0.31	32	13
2016	56,798.20	3.48	129,652.00	8.26	126,836.79	8.62	15,885.00	1.88	64,026.14	0.30	20	11
2017	60,223.44	3.69	177,933.00	11.33	161,284.00	10.96	12,839.00	0.88	53,238.82	0.25	22.5	14

Source: Financial Statement of Banks, CBN & National Bureau of Statistics

Test for stationary nature of the variables was carried out using Augmented Dickey-Fuller (ADF) test. The result showed that all the variables are stationary at level, and also stationary at first difference.

$$Y_t = Dt + Z_t + e_t$$

Where:

D_t = is the deterministic component (trend, seasonal component, etc.)

Z_t = is the stochastic component.

e_t = is the stationary error process.

Table 2 ADF Unit Root Test for Stationarity at 5% levels

Null Hypothesis: Variables has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	4.147414	0.0012
Test critical values:		
1% level	5.102417	
5% level	6.254170	
10% level	4.541471	

*MacKinnon (1996) one-sided p-values.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Variables	2.21411	0.332141	6.35241	0.0012
C	6.65214	7.214111	2.12415	0.0001
S.E. of regression	124.1411	Akaike info criterion		2.21214
Sum squared resid	12141411	Schwarz criterion		6.24110
Log likelihood	412.124	Hannan-Quinn criter.		6.32140
Durbin-Watson stat	1.95			

Source: E-view 10 output.

When variables produce a stationary series, co-integration among them in the long run is feasible.

Table 3 Johansen Co-Integration Result

Hypothesized No. of CE (s)	Eigen Value	Trace Statistics	0.05 Critical Value	Prob**	Max-Eigen Statistics	0.05 Critical Value	Prob**
None*	1.21410	12.2140	13.32414	0.0012	12.21410	9.25141	0.0012
At most 1	1.24141	0.24140	2.24141	0.007	0.00019	3.25410	0.0001

Max-eigen test indicate co-integrating equation at 5% level

Trace test indicates 1 co-integrating equation (s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

Source Compiled from E-view 10.

Johansen Co-integration test confirmed that a long run relationship exists between variables.

Table 4 Data Analysis for Hypothesis One

Dependent Variable: PAT

Method: Panel Least Squares

Date: 09/19/18 Time: 02:16

Sample: 20082017

Periods included: 10

Cross-sections included: 5

Total panel (balanced) observations: 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	24.48685	1.620601	15.10974	0.0000
MPR	0.244280	0.331005	0.737996	0.0091
R-squared	0.721219	Mean dependent var		25.43191
Adjusted R-squared	0.679380	S.D. dependent var		6.990443
S.E. of regression	.523153	Akaike info criterion		6.775480
Sum squared resid	2367.584	Schwarz criterion		6.851960
Log likelihood	-167.3870	Hannan-Quinn criter.		6.804604
F-statistic	0.544638	Durbin-Watson stat		2.517208
Prob(F-statistic)	0.009110			

Source: E-view 10 output.

Decision: Since p value ($0.009 < 0.05$), we hereby reject the null hypothesis and conclude that Monetary Policy Rate significantly affect Profitability of banks.

Table 5 Model Summary for Hypothesis Two

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.518a	.471	.495	77414100154.5414	1.51

a. Predictors: (Constant), MPR

b. Dependent Variable: Return on Equity

Source: SPSS version 23 output.

Table 6 Coefficients for Hypothesis Two

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	641416329	41003109		1.210	.011
	INT-RATE	4.211	67541411	.144	2.141	.000

a. Dependent Variable: Return on Equity

Source: SPSS version 23 output.

Decision: Since p value ($0.001 < 0.05$), we hereby reject the null hypothesis and conclude that Monetary Policy Rates significantly affect Return on Equity.

Table 7 Model Summary for Hypothesis Three

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.717a	.771	.525	14741100.54	2.01

a. Predictors: (Constant), CASH RESERVE RATIO

b. Dependent Variable: PROFITABILITY

Source: SPSS version 23 output.

Table 8 Coefficients for Hypothesis Three

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	714116329	14123109		1.210	.001
	CRR	1.141	1.210	.071	2.21	.009

a. Dependent Variable: PROFITABILITY

Source: SPSS version 23 output.

Decision: Since p value ($0.009 < 0.05$), we hereby reject the null hypothesis and conclude that Cash Reserve Ratio has significant effect on Profitability.

Table 9 Data Analysis for Hypothesis Four

Dependent Variable: ROE

Method: Panel Least Squares

Date: 09/19/18 Time: 02:53

Sample: 20082017

Periods included: 10

Cross-sections included: 5

Total panel (balanced) observations: 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	.212879	0.703286	-1.383333	0.0010
CRR	.287403	0.046099	34.43433	0.0001
R-squared	0.671093	Mean dependent var		22.74161
Adjusted R-squared	0.580283	S.D. dependent var		5.057929
S.E. of regression	1.008003	Akaike info criterion		2.892998
Sum squared resid	48.77139	Schwarz criterion		2.969479
Log likelihood	-70.32495	Hannan-Quinn criter.		2.922122
F-statistic	1185.723	Durbin-Watson stat		2.457662
Prob(F-statistic)	0.000001			

Source: E - View 10 Output.

Decision: The p value of 0.001 is lower than 0.05, we hereby conclude that Cash Reserve Ratio has significant effect on Return on Equity, and hereby reject the null hypothesis.

1.0 FINDINGS

The empirical results emanating from the analysis indicates that monetary policy has

a significant effect on bank profitability proxied by banks Profit after Tax (PAT) and Return on Equity (ROE). Further established, the findings of hypotheses 1 shows that Monetary Policy Rate (MPR) has a significant effect on banks Profit after Tax (PAT), with a p value of 0.009, R being the determinant of correlation shows that the ability of Monetary Policy Rate to

determine Profitability is about 72%. This study revealed that a unit change in Monetary Policy Rate account for about 4.14 unit change in Profitability of banks. This study revealed that Monetary Policy Rate has a significant effect on Profitability.

Findings of hypotheses 2 shows that Monetary Policy Rate (MPR) has a significant effect also on banks Return on Equity (ROE), with a p value of 0.001, R square as shown in model summary is about 51%, this implies that the ability of MPR determine Return on Equity is about 51%. Findings from analysis of hypotheses two shows that a unit change in MPR account for about 3.14 unit change in Return on Equity of banks. This study revealed that MPR significantly affect Return on Equity.

The Findings of hypotheses 3 shows that Cash Reserve Ratio (CRR) has a significant effect on banks Profit after Tax (PAT), with a p value of 0.001, R square as shown in model summary is about 77%, this implies that the ability of Cash Reserve Ratio to determine Profitability is about 77%. Findings from analysis of hypotheses three shows that a unit change in Cash Reserve Ratio account for a significant change in Profitability of banks. This study revealed that Cash Reserve Ratio has a significant effect on Profitability of banks.

Lastly the findings of hypotheses 4 shows that Cash Reserve Ratio (CRR) has a significant effect on banks Return on Equity (ROE) with a p value of 0.001, R square as shown in analysis is about 58%, this implies that that the ability of Cash Reserve Ratio to determine Return on

Equity is about 58%. Findings from analysis of hypotheses four revealed that a unit decline in Cash Reserve Ratio account for about 0.28 unit change in Return on Equity. This study revealed that Cash Reserve Ratio significantly affect Return on Equity.

This study is consistent with the research of Uwubanmwun and Ikponwosa (2015), where the Results reveal that monetary policy has a significant impact on bank's profitability in Nigeria. Particularly; monetary policy rates, money supply, bank credit and investment.

The study is in contrast with the results of Udeh (2015) that cash reserve ratio, liquidity ratio and interest rate did not have significant impact on the profit before tax of Zenith Bank Plc. However, minimum rediscount rate was found to have significant effect on the profit before tax of the bank, the paper concluded that a good number of monetary policy instruments do not impact significantly on profitability of commercial banks in Nigeria.

This study reveals that Monetary Policy Rate and Cash Reserve Ratio has significant effect on Profitability of Deposit Money Banks, MPR and CRR enhanced Profitability in Nigeria. This implies that with adequate and efficient monetary policies, the performance of deposit money banks will be greatly improved.

2.0 CONCLUSION AND RECOMMENDATIONS

The study of monetary policy and how it affects the profitability of deposit money

banks in Nigeria has really drawn much attention in the field of research. This is as a result of monetary policy being a contemporary problem in the banking sector as it is being continuously adjusted to suit the fluctuating economy. In view of this, this study sought to examine it in a way so as to incorporate the new changes in view of the ever-changing and dynamic financial environment.

Monetary policies when aligned with fiscal policies can go a long way in achieving economic growth and development. The overall effect of monetary policy on bank profits will also depend on the impact of monetary policy on macroeconomic conditions. In particular, it will crucially hinge on the efficacy of monetary policy in boosting aggregate demand at the zero lower bound and in adverse balance-sheet conditions. Both factors would tend to undermine its effectiveness. (See e.g. Borio, 2014; Bouis, Rawdanowicz, Renne, Watanabe, & Christensen, 2013).

Having examined the effect of monetary policy on deposit money banks profitability in Nigeria and based on the findings of this study, the following are recommended to be adopted in order to tackle the problems of monetary policy.

- i. The Central Bank of Nigeria (CBN) should adjust the monetary policy rate and cash reserve ratio in such a way that it will allow for an increase liquidity to enable the commercial banks to discharge their lending and investment functions effectively to the public.
- ii. The monetary authorities should adopt the use of one stringent monetary policy at a time. Stringent monetary policies affect money supply and reduces investment rate. The review of monetary policies should be done with a more considerate review of the Nigerian industrial sector (especially the small and medium scale industries), so as to ascertain how to peg its monetary policies to not be disastrous to the industrial sector and to the general economy.
- iii. Monetary policy should be complimentary to fiscal policy, and should be used together in order to be able to achieve uniform results and not have deviating outcomes on different sectors and the economy. The CBN and the Ministry of finance should work more closely to objectively articulate policies in the same economic direction.
- iv. There is the need for Deposit money banks to diversify their business activities to enable them make profits when there is monetary policies not favourable put in place by the monetary authorities. By relying solely on their banking activities, deposit money banks may not be able to make sufficient profit to meet its operating expenses, pay its employees and pay shareholders dividends.
- v. The CBN should ensure that more regulations and supervision are carried out on the banks regularly so as to avoid having manipulated financial reports in banks, because manipulated financial reports may portray banks to be healthy, and result in CBN fixing monetary

policy at rates where it may be detrimental to the operations of this banks.

- vi. Since the problem of inflation targeting remains the issue CBN faces while trying to adjust monetary policy, CBN should review the performance of different sectors and the inflation level

simultaneously so as to adjust the monetary policy at a point where it does not bring about an increase in rate of inflation while also not hindering and affecting the operation of banks, other institutions and businesses.

REFERENCES

- Ajayi F.O and Atanda. A (2012);" Monetary Policy and Bank Performance in Nigeria". A two Step co-integration Approach". *African Journal of Scientific Research*, Vol 9 No 1 Pp 463-468.
- Amassoma, D., Wosa P. I. & Olaiya, S. A. (2011). An appraisal of monetary policy and its effect on macroeconomic stabilization in Nigeria. *Journal of Emerging Trends in Economics and Management Sciences (JETEMS)* 2 (3), 232-237.
- Amidu, S. (2008). *The Impact of Monetary Policy on Banks' Credit in Ghana*. IAABD 2008 Proceeding, Track 1.
- Bank for International Settlements (2012). 82nd Annual Report, June.
- Central Bank of Nigeria (CBN) (1996): CBN Briefs, CBN Publications, Lagos.
- Central Bank of Nigeria (2017, May 23). *Nigeria Communique No 113 of the monetary policy committee*. Retrieved from <http://www.cbn.gov.ng>.
- Central Bank of Nigeria (various). Annual report and statement of account, various issues.
- Chowdhury, I., Hoffman, M., and Schabert, A., (2003). Inflation Dynamics and the Cost channel of Monetary Transmission. *European Economic Review* 50(2006) 995–1016.
- Friedman, M., 1963. Inflation: Causes and Consequences. Asia Publishing House, New York.
- Friedman, M. and Shwartz, A. T. A. (1963), "Monetary History of U.S. 1867 – 1960". Princeton: Princeton University Press.
- Gertler, M. and Gilchrist, S. (1994): The Role of Credit Market Imperfections in the Monetary Transmission Mechanism: Arguments and Evidence. *Scandinavian Journal of Economics*, 95(1), p 12-16.
- Goodfriend, M., King, R.G., (1997). The new neoclassical synthesis and the role of monetary policy. *NBER Macroeconomics Annual* 12, 231-283.
- Jhingan, M.L (2004). *Monetary Economics*, 6th edition, Vrinda Publication Limited.
- Jhingan, M.L. (2006). "The Economic of Development and Planning". 38th Edn. Vinda Publication (P) Ltd., Delhi.
- Jhingan M. L. (2011): *Monetary Economics 7th edition*. Vrinda Publications (p) ltd. Delhi
- Kashyap, A.K. and Stein, J. C. (2000). What do a million observations on banks say about the transmission of monetary policy. *American Economic Review*, 90, 407–428.
- Loayza, N. and Schmidt-hebbel K. (2002). *Monetary Policy Functions and Transmission mechanisms: an overview*. Central Bank of Chile.
- Onouorah, A., Shaib, I. O., Oyathelemi, E. & Friday, O. I. (2011). The impact of monetary policy on micro-economy and private investment in Nigeria. *Research Journal of Finance and Accounting*, 2(6), 65.
- Punita, R. and Somaiya, K.J. (2006). Monetary Policy: Its Impact on the

- Profitability of Banks in India. *Intermediate Business and Economics Research Journal*; 5 (3), Pg. 15-19.
- Standards and Poor's (2012). *A subsidiary of The McGraw-Hill Companies, New York* (accessed from www.standardandpoors.com) \
- Udeh, S. N. (2015). Impact of monetary policy instruments on profitability of commercial banks in Nigeria: Zenith bank experience. *Research Journal of Finance and Accounting*, 6 (10), 190-206.
- Uwubanmwen and Ikponmwosa (2015) "Monetary policy and bank profitability". *International Journal of Management Science Research*, 1(1), University of Jos.
- Uwubanmwen & Ikponmwosa (2016) "Monetary Policy and Bank Profitability", *International Journal of Management Science Research*, Vol 1 No 1, University of Jos.
- Wrightman, D. (1976). *"An Introduction to Monetary Theory and Policy"*. New York: The Free Press.

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ABSTRACT

The overall objective of this study is to investigate insurance as the key player of manufacturing companies' performance. To achieve this objective, data was gathered about risk factors within the manufacturing premises; customers risk exposure, risk transfer from manufacturing companies, risk transfer to insurance companies, growth of the manufacturing company, and adequate insurance cover. A total of 200 respondents were selected for the purpose of the study using stratified sampling method. The Pearson Product Moment Correlation and Regression Analysis were used to test the hypothesis. Both qualitative and quantitative analysis approaches were used in data analysis, thus reflecting the mixed model research design approach followed in the analysis. It is recommended that to be successful in the long-term, manufacturing companies need to think beyond what is affecting them today to what is going to happen tomorrow. This is not just about addressing changes, but also taking into account alterations in social, environmental and governance issues which can be handled by insurance.

Keywords: insurance, manufacturing companies, risk transfer, insurance cover

1.0 INTRODUCTION

1.1 Background

The manufacturing sector comprises of activities which includes the mechanical, physical, or chemical transformation of materials, substances, or components into new products. Establishments in the Manufacturing sector are often described as plants, factories, or mills and characteristically use power-driven machines and materials-handling equipment. However, establishments that transform materials or substances into new products by hand or in the worker's home and those engaged in selling to the general public products made on the same premises from which they are sold, such as bakeries, candy stores, and custom tailors, may also be included in this sector. The success of the manufacturing industry depends on its ability to consistently produce a high volume of goods on tight margins, no matter what happens in the outside world. Unfortunately, a lot of what affects its production activities is uncertain and beyond man's control. Every business wants to believe that the worst will never happen, but there are inherent risks associated with manufacturing that needs to be examined. The possibility that products will be unsafe for end users is real. There may be a malfunction in the production process that is not realized until someone is harmed. While companies are proactive about preventing this from happen, it is still a risk. Equipment used in manufacturing can pose a danger to employees when a malfunction occurs, failure to follow safety procedures could also cause injury or death, and companies may be held liable if there is a belief that

safety training efforts prior to an incident were not adequate.

Insurance allows anyone harmed by these products to be compensated for medical expenses and other losses without hurting the business. Insurance is defined as the act of pooling funds from many insured entities in order to pay for relatively uncommon but severely devastating losses which can occur to these entities (Omoke, 2012). According to Oke (2012) insurance is design to protect the financial well-being of an individual, companies or other entity in the case of unexpected loss. Insurance is a risk transfer mechanism where an individual or commercial enterprise shifts some of its uncertainty embedded in everyday life, to the shoulders of another, in return for a certain amount of money called premium. It is essentially an arrangement by which a party, called the 'insurer', promises to pay another party called the "Insured", a sum of money in the event of a loss occurring of The global positive impact of insurance therefore cannot be overemphasized as it is essential for sustainable economic development and supportive of the poverty alleviation aspirations of many developing nations (business day newspaper 12 Sept 2015). Akinlo (2013) posit that insurance is the corner stone of modern day financial services.

In the manufacturing sector all activities are carried out stage by stage and from the production of the products to the distribution of these products so it is almost impossible to prevent losses from occurring. Every manufacturer depends on

the wealth of assets such as equipment, inventories and supplies to keep its business running also, the premises the manufacturers use for their productions as well as a warehouses for the storage of finished products, manufacturer could be liable for the damages caused to their customer as a result of the consumption or usage of their product, they can also be liable for bodily injury or death to one of their employees as a result of production activities provided that the accident occurred at the place of work and also during working hours. The combination of risk is unique to the manufacturing companies therefore each loss exposure needs different policies in order to get appropriate protection. Most manufactures depends on people and equipment's to produce their goods ignoring the fact that they prone to unforeseen circumstances. Companies must work to prevent risk at every stage of their operation. From design and pre-fabrication to shipment of the final product, attention to detail and safety are of the utmost importance. Companies must acknowledge the high demands they face, and implement risk control processes.

Fatula (2007) and cited by Oke (2012) explained that the practice of insurance company in Nigeria has played a significant role in the development of the economy and managing the risk of household and firm by issuance of insurance policy, mobilizing and transferring fund to the deficit unit for financing.

1.2 Problem Statement

The primary goal of a manufacturing company is to satisfy its customers and also to maximize profit, most manufacturing companies go on with their day to day business ignoring the fact that they are exposed to all kinds of risks. The manufacturing companies in a developing country like Nigeria is subject to a number of risks that lead to large fluctuations in the output and prices of its products. These fluctuations result in uncertain incomes for producers, and varying availability of work for laborers. Most manufacturing companies go through tough times when accidents occur either to one of its worker, or customer is harmed as a result of the consumption of products. This problem cannot be totally avoidable but provisions can be made for in case an unforeseen circumstance occurs. The major functionality of insurance on the client side is risk transfer. Usually the insured pays a premium and is secured against a specific uncertainty. By reducing uncertainty and volatility, insurance companies smoothen the economic cycle and reduce the impact of crisis situations on the micro and aggregate macro level. However, the demand for protection against loss of life and property caused by natural disaster, crime, violence, accidents, are not so demanded in Nigeria thus the purchase, possession and sale of goods, assets and services which are often facilitated by the indemnification of the insurance thereby not enhancing growth. Therefore, the assured safety of life and property which enhances trade, transportation and capital lending and many sectors are not heavily reliant on insurance services.

Manufacturing companies face the problems of

1. Loss of customer loyalty
2. Uncertain incomes for producers
3. Inability to manage risks when they occur sometimes leads to the collapse of manufacturing companies

1.3 Research Objectives

1. Identify the risk factors in the manufacturing environment and also to its customers
2. Analyze how risk is being transferred from the manufacturing companies to the Insurance Company
3. Know whether there is an adequate insurance cover on the growth of the manufacturing companies

1.4 Research Hypotheses

H_{01} : there is no relationship between the risk factors identified in manufacturing environment and its customers.

H_{02} : Risk transfer does not reduce the burden of the manufacturing companies

H_{03} : It is not important for a manufacturing company to have adequate insurance cover

1.5 Scope of the Study

In view of the study, the research took into consideration 'Insurance' as the key player of the manufacturing company's performance in Nigeria. The research study selected 10 manufacturing companies in Lagos state. 20 respondents were selected in each of the 10 manufacturing companies to give a total of 200. Two hundred questionnaires were administered to the employees of selected manufacturing companies in Lagos state that were to participate in the study.

2.0 REVIEW OF LITERATURE

According to Hayes, Perry and Thompson (1986) cited in Walke & Topkar (2012). "uncertainty is part of all manufacturing work regardless of the size of the product line. Other risk factors that carry risk include: complexity, speed of manufacturing, location of the product line, and familiarity with the work. When serious risks occur on product lines the effects can be very damaging. In extreme cases, time and cost overruns turn a potentially profitable product line into a loss-making venture". "Manufacturing companies are often labeled as unsafe, dangerous or hazardous places to work" (Sherratt, Farrell & Noble, 2013). The fact that, "manufacturing activities are diverse with changing project teams and difficult-to-handle materials and equipment, could lead to human errors that are uncontrollable" (Al-Humaidi & Tan 2010). Consequently, "risk can be described in terms of its effect (positive or negative) on objective" (Hillson & Murray-Webster, 2004; Damodaran, 2008; Kannan & Thangavel, 2008). Coşkun (2012) observed that "the recent global events (from the global financial crisis to the ensuing market volatility, decline in consumer confidence, and extreme fluctuations in energy prices) have demonstrated that uncertainty permeates firms' operations. Likewise, financial failures observed during global financial crisis also highlight the importance of Enterprise Risk Management. Notwithstanding the presence of risk and uncertainty in firms' operations; uncertainty and risk have not been effectively managed by many firms' in Nigeria. Performance and risk are

inextricably linked. By establishing a consistent and disciplined process for managing risks, firms' can improve the predictability of their results. Enterprise Risk Management can earn firms' better ratings and allows them to take advantage of lower costs of capital". Levy, Lamarre & Twining (2010).explained that "in the dynamic and highly competitive business environment, manufacturing industries are under tremendous pressure due to the free market economy, rapid technological development, and continuous changes in customer demands". Gupta, (2011) and Fadun, (2013) added that "to cope with the current business trends, the demands on modern manufacturing systems have required increased flexibility, higher quality standards, and higher innovative capacities". "These demands emphasize the need for high levels of overall system reliability that include the reliability of all human elements, machines, equipment, material handling systems and other value added processes and management functions throughout the manufacturing system" Levy, Lamarre & Twining (2010). Gupta, (2011) however stated that "whatever the resources they possess, the manufacturing organizations encounter undesirable events and unwanted setbacks such as machine breakdowns, material shortages, accidents, and absenteeism that make the system unreliable and inconsistent". Hallowell and Gambatese (2009) in their article noted that "the temporary and transitory nature of manufacturing companies are claimed to contribute to accidents". While "environmental factors such as climate, temperature, and geographical conditions could be considered as typical

characteristics for workplace" (Liao & Perng 2008), "organisational factors may include characteristics referring to manufacturing companies and project-based procurement of works" (Rozenfeld, Sacks, Rosenfeld and Baum, 2010). The size of workplace was analyzed by Lingard and Holmes (2001). And they justified "the significance of small businesses as they are the majority in Australia and on average employ less than 20 workers. Being small firms, their characteristics were often associated with poorer management skills and inadequate implementation of safety measures". Organizational and environmental factors were focused on by Ling, Liu, and Woo. (2009) who emphasized "factors relating to time, month, location, size of organisation, and type of workplace". López et al. (2008) showed that "time of day and day of the week are associated with accident severity". Their study led to "a further investigation into other factors associated with the environment such as climatic, geographic and behavioral factors and their impact on accident severities" (López, Fontaneda, Alcantara and Ritzel, 2011). Generally, the manufacturing industry faces substantial financial, operational, strategic and hazard risks. Financial risks create uncertainty about future cash flows due to changes in general economic conditions and specific changes in revenues operating expenditure and financing costs. According to Dorfman (2007) cited by Siayor (2010), "operational risk is not really one risk but many. It's a sweep up of a term covering everything that does not fall under either market risk or credit risk. Operational risk management requires identification of its

sources, measuring it and plans to address them”. Operational risk can be “qualitative leading to reputational losses and quantitative leading to financial losses” (Simiyu, 2008), (Mbiti, Lugogo & Koech2018). Irrespective of the type of risk, insurance helps to remove the uncertainties in business.

2.1 CONCEPTUAL REVIEW

Based on the literature, the researcher postulated a conceptual model, as shown in Figure 2.1, in which risk factors, risk transfer and adequate insurance cover affects the growth of the manufacturing industry.



Figure 2.1: Insurance: The Key Player of Manufacturing Companies

Source: Author's Compilation, 2018

Risk transfer means “the original party exposed to a loss can obtain a substitute party to bear the risk” (Aduloju, 2008). Risk transfer is “a feature of all insurance transactions because the uncertainty of who will pay for the loss is transferred from the individual to the insurance pool. Some methods of risk transfer, however, do not involve insurance. They are known as non-insurance risk transfer. Non-insurance transfers are methods other than insurance by which a pure risk and its potential financial consequences are transferred to another party”.

Examples of non- insurance transfers include contracts, leases, and hold-harmless agreements. For example, the hotel's contract with a transport company for the transportation of their employees can specify that the transport company is responsible for any accident to their staff

while in their vehicle. If they lease some cars, the lease can specify that maintenance, repairs, and any physical damage loss to the vehicle are the responsibility of the transport company. The risk of a defective television or stereo set can be transferred to the retailer by purchasing a service contract, which makes the retailer responsible for all repairs after the warranty expires. The risk of a price increase in construction costs can be transferred to the builder by having a guaranteed price in the contract. The risk of a rent increase can be transferred to the landlord by a long-term lease. Leasing allows the transfer of the risk of obsolescence to another party (the owner of the property). A firm may insert a hold-harmless clause in a contract, by which one party assumes legal liability on behalf of another party. Thus, a tread mill manufacturer may, by inserting a hold-

harmless clause, be held harmless by the hotel management if the thread mill malfunctions, causing injury or even death to a user.

The Act of 16 June 1999 (ILO, 1999) “provides for occupational hygiene and safety standards, and the obligations of employers and employees to create a safe work environment, organization of hygiene and safety at the level of the enterprise, institution and State, procedures for settlement of disputes in this matter, and responsibility for breaches of established standards. In the specific case of manufacturing company employees, during their workday, they are exposed to various occupational risks generated by chemical, physical, biological and physiological risk factors”.

Physical risk factors as explained by Organização (2001) is “to which workers are exposed in manufacturing companies include noise from vehicles, extreme air temperatures (hot and cold) during the seasons with extreme temperatures characteristic of the studied region. Chemical risk factors include contact with the fuel, more specifically, with the chemical benzene. Biological risk factors include bacteria, viruses, fungi, *etc.*, which the manufacturing company workers come into contact due the diversity of clients of the local population and immigrants from other regions, characteristics of the port region of the study, the lack of hand hygiene of workers and non-use of individual protective devices. Physiological risk factors are repetitive movements of the same type, such as those performed by employees to supply the

vehicles. These factors can create or worsen occupational diseases and accidents, which depend on the nature of risk, the degree of exposure, a lack of protective measures, work conditions and rhythms and the worker's function”. An occupational accident is defined “as a fire, explosion or another occurrence at work which may endanger the life or health of employees or that of other persons” (ILO, 2001).

Manufacturing companies provides suitable atmosphere for occupational accidents. “In this place it is possible to identify health problems related to noise, favoring irritability of the worker; physical stress and decreased hearing acuity among others” (Ferreira, & Freire, 2001). “Biological agents can result in respiratory infections” (Souza, Medeiros, & Diagnóstico, 2007), among others. As explained in the research by Wu, Zhang, Wan, Gu, Liu, & Jin (2008), “the inadequate postures, the long working hours standing and repetitive movements may cause injury and pain in the cervical spine, upper and lower limbs. Injuries resulting from chemical agents are indicated as a major concern in occupational workplace. Benzene, a constituent of gasoline, is associated with skin lesions and intoxication at the airway and digestive tract levels myeloblastic and lymphoblastic leukemia and non-Hodgkin lymphoma”

“Chemical hazards are recognized in the literature and in different studies as the risk of greater magnitude and associated with greater potential loss over time, however, it is important to identify the workers'

perceptions of occupational exposure in order to be able to understand all risk factors in relation to their workday". (Kaufman, Anderson, & Issaragrisil, 2009; Richardson, 2008; Infante-Rivard, Vermunt, Weinberg, 2007; Smith, Jones, & Smith, 2007).

2.2 Theoretical Review

i. The Basic Theory of Insurance

Insurance assumes that there exist a multitude of risk-averse individuals who are insured and face independent, identical loss risks that can be covered through insurance that makes the pooling of risks possible. There are three ways to take care of the risks: retain the risk; avoid the risk; or transfer the risk. Retaining is self-insurance, i.e., bearing the cost of the loss in its entirety. Avoiding is the decision not to face risk. "Transferring risk takes place when one purchases a policy of insurance that makes the insuring party (insurer) responsible for payments in case of the occurrence of the event.

ii. Modern Portfolio Theory

Modern Portfolio Theory is a theory of investment which tries to maximize return and minimize risk by carefully choosing different assets (Chang, Yang, & Chang, 2009 & Mangram, 2013). Modern Portfolio Theory is "a mathematical formulation of the concept of diversification in investing, with the aim of selecting a collection of investment assets that has collectively lower risk than any individual asset. This is possible, in theory, because different types of assets often change in value in opposite ways. For example, when the prices in the stock market fall, the prices in the bond market often increase, and vice versa". "A

collection of both types of assets can therefore have lower overall risk than either individually" (Mandelbrot, and Hudson, 2004). "The Primary principle upon which Modern Portfolio Theory is based is the random walk hypothesis which states that the movement of asset prices follows an unpredictable path: the path as a trend that is based on the long-run nominal growth of corporate earnings per share, but fluctuations around the trend are random" (Chandra, Siddharth & Shadel, 2007).

iii. Stakeholders Theory

The stakeholder's theory was originally detailed by Edward Freeman in the book *Strategic Management: A Stakeholder Approach*. He identified stakeholders of a corporation to include: Organization, management, shareholders, suppliers, employees, local community and clients. Each of these stakeholders makes positive contribution to the organization therefore, this theory presents techniques for management's giving due regard to groups of interest. Simply put, it tries to explain the 'principle of who or what really counts'. According to Freeman (2012), "each of these stakeholders affect or benefit from the other, for example shareholders seek to maximize their wealth in the organization and employees are concerned with the ability of the organization to secure their employment and pay their salary on a timely basis. On the other hand the organization depends on suppliers for inputs to produce quality goods as suppliers depend on them for payment because organizations are their customers".

Reynolds, Schultz and Hekman (2006)

assert that “stakeholder theory helps managers in making decisions on how they can balance interests of all stakeholders surrounding organizations to ensure that they maintain the support they receive from the stakeholders”. According to Reynolds et al. (2006), “balancing interests of stakeholders is done where managers distribute scarce resources to those who claim against the organization”.

2.3 Empirical Review

In a study of Nigerian context, Torbira and Ngerebo (2012) investigated “the relationship between risk management practices and firm performance using Gross Fixed Capital Formation (GFCF) as a surrogate. Their findings revealed that sound risk management practices affect the growth of the firm at least in the short run. However, using the growth of fixed capital formation as a proxy for performance will make sense only if the study controls for the non-settlement of claims issue that is prevalent in the industry”. “Insurance companies sometimes use technicalities to evade claims payments”. In a related study in the same industry, Obalola, Akpan and Olufemi (2014) revealed “a positive relationship between the Enterprise Risk Management implementation and organizational performance in Nigeria”.

Gordon, Loeb and Tseng (2009) claimed “in their study that the relationship between Enterprise Risk Management implementation and firm performance is dependent on the proper match between Enterprise Risk Management and five contingent factors (environmental uncertainty, industry competition, firm size, firm complexity, and board of

directors' monitoring). In contrast, the study selected the contingent variables without explicit theoretical justification. It makes sense to deduce that implementing Enterprise Risk Management alone may not lead to higher performance”. Also, McShane, Nair, and Rustambekov (2011) used “the S&P Enterprise Risk Management rating scale as a proxy for Enterprise Risk Management quality and linked it to firm value. The study revealed a positive relationship between Enterprise Risk Management capability and firms' value. However, it felt to report the relationship between higher Enterprise Risk Management rating and firm performance”. In a US context study, Ballantyne (2013) “found that Enterprise Risk Management implementation is not connected to the financial performance of organisations and that the implementation of Enterprise Risk Management alone is not sufficient to accomplish the theoretical assertions of Enterprise Risk Management as highlighted in the literature. These contradictions justify the need to examine further the Enterprise Risk Management effect through a survey approach to enable the business firms appreciate the benefits of Enterprise Risk Management implementation in the context of Nigeria”.

According to White (2005) cited by Owolabi, Oloyede, Iriyemi, & Akinola, (2017) conducted “an investigative study on the management of property risks in Nigeria using a case study of the insurance sector. Questionnaires were distributed to a sample of 18 insurance companies out of a total of 36. An interview was conducted with the Commissioner of Insurance and the Honorary Secretary to the Institute of

Loss Adjusters and Risk Surveyors. Due to the exploratory nature of the study, a qualitative analysis of the available data was adopted. Data from questionnaires and interviews was coded and frequency tables in simple percentages used to analyze responses to each question. A descriptive approach was then adopted in communicating the results. In summary, the study found that although risk management is consciously present in Nigeria insurance business, there still lacks a clear understanding of the discipline in the industry. Where they were available, the involvement of risk surveyors/managers by insurers was found not comprehensive enough. They were not involved in risk control and evaluation even after they had recommended appropriate risk control measures. It was found that although insurers have adequate information for any risk management activity, there lacks an efficient means of storage and retrieval of the same. The study recommended computerization and general improvement of their information systems”.

Eze& Okoye (2013) examined “the impact of insurance practice on the growth of Nigerian economy. The study observed that the insurance premium capital has significantly impacted on economic growth in Nigeria; that the level of total insurance investment has significantly effected on economic growth in Nigeria; and that there is causal relationship between insurance sector development and economic growth in Nigeria. Their findings implied that insurance industry would contribute meaningful to the growth of Nigeria economy in the long run. They

recommended that, having seen that there is long-run relationship between insurance industry practice and economic growth in Nigeria. They further advised that more efforts should be made to increase transparency and efficiency in insurance industry through adequate legislation and policy formulation targeted at providing institutional improvement, especially in risk management and product innovations in Nigeria insurance industry”.

Mojekwu, Agwuegbo and Olowokudejo (2011) examined “the impact of insurance contributions on economic growth in Nigeria. The study covered the period between 1981 and 2008. This study used dynamic factor model which described a number of methods designed to analyze a functional relationship between the volume of insurance contribution and economic growth in terms of underlying but unobservable random quantities called factors. The factor loadings indicated which common trend is related to which set of the series. The study found a functional positive relationship between the volume of insurance contributions and economic growth in Nigeria”.

3.0 METHODOLOGY

The study therefore made use of survey research method through the use of questionnaire and gathered information from employees of manufacturing companies because it is interested in analyzing the relationship between insurance and the performance of manufacturing companies without making any attempt to control or manipulate respondent's opinion. The sampling technique used for this study was stratified

sampling method and convenience sampling techniques. The stratified sampling method was used to choose the manufacturing companies where the questionnaires were administered in Lagos state. Convenience random sampling was used to select the participants in the chosen manufacturing companies for the filling of the questionnaires in this research because it was easier to select the participants needed from the target location. The research study selected 10 manufacturing companies in Lagos state. 20 respondents were selected in each of the 10 manufacturing companies to give a total of

200. 200 questionnaires were administered to the employees of the manufacturing companies in Lagos state that were willing to participate in this study.

4.0 DATA ANALYSIS

Hypothesis One

H_{01} : There is no relationship between the risk factors identified and the growth of the manufacturing industry.

In testing whether there is any relationship between variables this study makes use of Pearson product-moment correlation.

Table 4.1A: Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum	Label
Risk factors identified	188	2.32447	1.12151	437.00000	1.00000	5.00000	The manufacturing premises is prone to natural disaster
The growth of the manufacturing industry	188	3.31915	1.30579	624.00000	1.00000	5.00000	When accident occurs the profit of the company is affected

Table 4.1B: Pearson Correlation Coefficients, N = 188

Prob > |r| under H_0 : $\rho=0$

	Risk factors identified	The growth of the manufacturing industry
Risk factors identified	1.00000	0.73226 <.0001
The growth of the manufacturing industry	0.73226 <.0001	1.00000

Decision

According to the data presented in Table 4.1B, the relationship between the risk factors identified and the growth of the

manufacturing industry is a strong relationship ($r=0.73226$). Considering the "Coefficient of Determination", since the correlation of the risk factors identified and

the growth of the manufacturing industry is (r) is = 0.73226; then, the coefficient of determination is = 0.5362047. It implies the growth of the manufacturing industry is 53.62% as a result of risk factors identified while the remaining 46.38% is explained by other exogenous variables that are excluded in the model but that can also contribute to the growth of the manufacturing industry. The analysis presented in Table 4.1B revealed that the relationship between the risk factors identified and the growth of the

manufacturing industry is significant since the P-value is <.0001. Therefore, there is enough evidence to reject the null hypothesis (H_0) and uphold the alternative hypothesis (H_1). That is, “there is a relationship between the risk factors identified and the growth of the manufacturing industry”.

Hypothesis Two

H_{02} : Risk transfer does not reduce the burden of the manufacturing

Table 4.2: Summary of Regression Analysis of Risk transfer on the burden of the manufacturing companies ^a						Model Summary ^b	
Variable	Label	Parameter Estimate	Standard Error	t Value	Pr > t		
Intercept	Intercept	1.39897	0.12972	10.78	<.0001	R-Square	0.6439
	Risk transfer	-0.92218	0.05029	-18.34	<.0001	Adj R-Square	0.6420

a. Predictors: (Constant), Risk transfer.

b. Dependent Variable: The burden of the manufacturing companies.

The effect of risk transfer on the burden of the manufacturing companies is summarized in Table 4.2; the coefficient of multiple determination ($R^2 = 0.6439$) implies that the model exhibited high explanatory power, and is a good fit. That is, within the context of the model, about 64.39 percent of total variations in the burden of manufacturing companies are attributed to risk transfer, and only 35.61 percent unexplained variations can be attributed to other factors outside our model.

As depicted in Table 4.2, the estimates of the model coefficients for β_0 (Intercept) is 1.39897, and β_1 (Risk transfer) is -0.92218. Therefore, the estimated model between risk transfer and the burden of the manufacturing companies is presented thus:

The burden of the manufacturing companies = 1.39897 - 0.92218 Risk transfer.

The regression equation shows that the relationship between risk transfer and the

burden of the manufacturing companies is negative. 1.39897 is the average value of the burden of the manufacturing companies when the effect of financial inclusion is constant. Table 4.2 shows that the reduced burden of the manufacturing companies is due to the per unit increment in effective risk transfer. If we increase effective risk transfer by 1 unit the average change in burden of the manufacturing companies will decrease by 0.92218.

Decision

Since $t\text{-calculated} = 18.34 > t\text{-tabulated} =$

1.97266270. In conclusion, the results of the regression confirm with 95% confidence that we reject the null hypothesis. Based on the above explanatory variables and the slope coefficient, we therefore conclude that risk transfer reduces the burden of the manufacturing companies.

Hypothesis Three

H_{03} : Adequate insurance cover does not increase the profitability of manufacturing company.

Table 4.3: Summary of Regression Analysis of Adequate insurance cover on profitability of manufacturing company ^a						Model Summary ^b	
Variable	Label	Parameter Estimate	Standard Error	t Value	Pr > t		
Intercept	Intercept	0.97024	0.10427	9.30	<.0001	R-Square	0.5392
	Adequate insurance cover	0.59633	0.04042	14.75	<.0001	Adj R-Square	0.5367

a. Predictors: (Constant), Adequate insurance cover.

b. Dependent Variable: Profitability of manufacturing company.

Adequate insurance cover on profitability of manufacturing company is summarized in Table 4.3; the coefficient of multiple determination ($R^2 = 0.5392$) implies that the model exhibited high explanatory power, and is a good fit. That is, within the context of the model, about 53.92 percent of total variations in profitability of manufacturing companies are attributed to adequate insurance cover, and only 46.08 percent unexplained variations can be attributed to other factors outside our model.

As depicted in Table 4.3, the estimates of the model coefficients for β_0 (Intercept) is 0.97024, and β_1 (Adequate insurance cover) is 0.59633. Therefore, the estimated model between adequate insurance cover and profitability of manufacturing company is presented thus: Profitability of manufacturing company = 0.97024 + 0.59633 Adequate insurance cover. The regression equation shows that the relationship between adequate insurance cover and profitability of manufacturing company is positive. 0.97024 is the average value of profitability

of manufacturing company when the adequate insurance cover is constant. Table 4.3 shows that profitability of manufacturing company is due to the per unit increment in adequate insurance cover. If we increase adequate insurance cover by 1 unit the average change in profitability of manufacturing company will increase by 0.59633.

Decision

Since $t\text{-calculated} = 14.75 > t\text{-tabulated} = 1.97266270$. In conclusion, the results of the regression confirm with 95% confidence that we reject the null hypothesis. Based on the above explanatory variables and the slope coefficient, we therefore conclude that adequate insurance cover increases profitability of manufacturing company.

5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

In view of the analysis of hypothesis one, the result concludes that “there is a relationship between the risk factors identified and the growth of the manufacturing industry”. This is evidenced by the value of Pearson Correlation Coefficient which was reported as 0.73226. The P-value ($<.0001$) led to rejecting the hypothesis which states that There is no relationship between the risk factors identified and the growth of the manufacturing industry.

The result of the simple linear regression analysis used in testing the significance of the impact of risk transfer on manufacturing companies, the analysis

revealed a negative relationship between risk transfer and manufacturing companies as evidence in hypothesis one. The $t\text{-calculated}$ (18.34) of risk transfer is greater than the $t\text{-tabulated}$ (1.97266270), this led to the conclusion that risk transfer reduces the burden of the manufacturing companies.

Hypothesis three states that “adequate insurance cover does not increase the profitability of manufacturing company” and was analyzed with simple linear regression. The $t\text{-calculated}$ of adequate insurance cover (14.75) are greater than the $t\text{-tabulated}$ (1.97266270). The values of the adjusted R^2 indicate that that the model has solid match and it was concluded that adequate insurance cover increases profitability of manufacturing company as evidenced from the $t\text{-calculated}$ greater than $t\text{-tabulated}$.

5.2 Conclusion

This study analyzes insurance as the key player of manufacturing company's performance.

The findings are instructive. As a general note, insurance serves a number of valuable economic functions that are largely distinct from other types of financial intermediaries. In order to highlight specifically the unique attributes of insurance, it is worth focusing on those services that are not provided by other financial service providers, excluding for instance the contractual savings features of whole or universal life products. The indemnification and risk pooling properties of insurance facilitate commercial transactions and the provision

of credit by mitigating losses as well as the measurement and management of non-diversifiable risk more generally. Typically insurance contracts involve small periodic payments in return for protection against uncertainty, but potentially severe losses. Among other things, this income smoothing effect helps to avoid excessive and costly bankruptcies and facilitates lending to businesses. Most fundamentally, the availability of insurance enables risk averse individuals and entrepreneurs to undertake higher risk, higher return activities than they would do in the absence of insurance, promoting higher productivity and growth. This study concluded that there is a relationship between the risk factors identified and the growth of the manufacturing industry, and established that risk transfer reduces the burden of the manufacturing companies. This study also concluded that adequate insurance cover increases profitability of manufacturing companies.

5.3 Recommendations

It is therefore appropriate to highlight some recommendations which, if implemented could further increase the awareness of insurance as the keyplayer of manufacturing companies performance. The following policy considerations are recommended:

- i. Basing on prevailing circumstances as highlighted in the study, it is recommended that the manufacturing companies in Nigeria should continue to engage the service of insurance companies in putting forward the risk management processes in all their dealings. This way, the gradual improvement in profitability levels will be expected
- ii. To be successful in the long-term, manufacturing companies need to think beyond what is affecting them today to what is going to happen tomorrow. This is not just about addressing changes, but also taking into account alterations in social, environmental and governance issues which can be handled by insurance.
- iii. The policy makers need to put up more stringent policies for the manufacturing firms to better manage risks that can hamper their performance. At the moment, pressure to manage risks is on the financial sector and the other sectors, especially the manufacturing sector, have been left out.
- iv. This study also recommends the need for manufacturing firms to entrench more measures to manage risks as the level of use of instruments to manage such risks is still low. Engaging the service of insurance companies will help in ensuring that such risks are better managed for their gains to be realized.
- v. The manufacturing firms should also work on enhancing their efficiencies in terms of their cost of inputs as well as their cost of outputs. This can also be enhanced by putting into place better financial risk management practices with the help of insurance companies.

REFERENCES

- Aduloju, K. (2008). Principles of Motor Insurance. Lagos: Pumarik Nig. Ltd.
- Akinlo, T. (2013). The causal relationship between insurance and economic growth in Nigeria (1986-2010). *Australian Journal of Business and Management Research*, 2(12), 49-57.
- Al-Humaidi, H. & Tan, F. (2010). 'Construction Safety in Kuwait', *Journal of Performance of Constructed Facilities*, 24(1), 70-7
- Ballantyne, R. (2013). *An empirical investigation into the association between enterprise risk management and firm financial performance*. Lawrence Technological University.
- Chandra, Siddharth; Shadel, William G. (2007) Crossing disciplinary boundaries: Applying financial portfolio theory to model the organization of the self-concept. *Journal of Research in Personality*. 41(2): 346-373
- Chang, T.J., Yang, S. C., & Chang, K.J. (2009). Portfolio optimization problems in different risk measures using genetic algorithm, *Science Direct*, 36(7), 10529-10537.
- Coşkun, Y. (2012). Financial failure and risk management. *Sermaye Piyasası Dergisi*, 10(2), 100-109.
- Damodaran, A. (2008). *What is the risk free rate? A Search for the Basic Building Block*. Stern School of Business, New York University.
- Dorfman, M. S. (2007). *Introduction to Risk Management and Insurance*. (9th ed). Englewood Cliffs.
- Dumrak, J. Mostafa, S., Kamardeen, I. & Rameezdeen, R. 'Factors associated with the severity of construction accidents: The Case of South Australia', *Australasian Journal of Construction Economics and Building*, 13(4).32-49
- Eze, O. R. & Okoye, V. (2013). Analysis of insurance practices and economic growth in Nigeria: using co-integration test and error correction model. *Global Advanced Research Journal of Management and Business Studies*. 2(1) 063-070.
- Fadun, O. S & Shoyemi, O.S. (2018). Insurance investment funds and economic growth in Nigeria: an empirical analysis (2000 – 2015). *International Journal of Development and Management Review (INJODEMAR)*. 13(1)73-88.
- Fadun, O. S. (2013). Risk Management and Risk Management Failure: Lessons for Business Enterprises. *International Journal of Academic Research in Business and Social Sciences* 3(2),225-239.
- Fatula O (2007). "The imperative of Recapitalisation and Consolidation in the Nigeria Insurance Industry" I(I&II), *Ikeja Bar Review*, 128.
- Ferreira, M.C.; Freire, O.N. (2001). *Carga de Trabalho e Rotatividade na Função de Frentista*. *RAC* 5, 175-200.
- Freeman, R. E. (2012). *Strategic Management. A Stakeholder Approach*. Boston: Pitman.
- Gordon, L. a., Loeb, M. P., & Tseng, C.-Y. (2009). Enterprise risk management and firm performance: A contingency perspective. *Journal of Accounting and Public Policy*, 28(4), 301-327.
- Gupta, P. K. (2011). Risk management in Indian companies: EWRM concerns and issues. *The Journal of Risk Finance*, 12(2), 121-139.
- Hallowell, M. & Gambatese, J. A. (2009). Construction safety risk mitigation. *Journal of Construction Engineering and Management*, 135(12).
- Hayes, R W, Perry J G, Thompson P A

- &Willmer, G (1986), Risk management in engineering construction - Implications for Project Engineers, Project Management Group, UMIST, Thomas Telford Ltd, London, UK.
- Hillson D. A. & Murray-Webster R. (2004). "Understanding and managing risk attitude". *Proceedings of 7th Annual Risk Conference, held in London, UK*.
- Infante-Rivard, C.; Vermunt, J.K.; Weinberg, C.R. (2007). 'Excess transmission of the N A D (P) H : Q u i n o n e oxidoreductase 1 (NQO1) C609T polymorphism in families of children with acute lymphoblastic leukemia'. *Am. J. Epidemiol.* 165, 1248–1254.
- Kaufman, D. W., Anderson, T.E. & Issaragrisil, S. (2009). 'Risk factors for Leukemia in Thailand'. *Ann. Hematol.* 88(11):1079-88.
- Kannan, N & Thangavel, N. (2008), Overview of Indian Insurance Sector. *Academic Open Internet Journal* (22). ISSN 1311-4360. www.acadjournal.com
- Levy, C., Lamarre, E., & Twining, J. (2010). *Taking control of organizational risk culture*. New York, NY: McKinsey & Company.
- Liao, C. W. & Perng, Y. H. (2007). Data mining for occupational injuries in the Taiwan construction industry. *Safety Science* 46, 1091–1102 www.elsevier.com/locate/ssci
- Lingard, H., & Holmes, N. (2001). Understandings of occupational health and safety risk control in small business construction firms: barriers to implementing technological controls. *Construction Management and Economics*, 19(2), 217-226.
- Ling, F.Y.Y., Liu, M. & Woo, Y.C. (2009), 'Construction fatalities in Singapore'. *International Journal of Project Management*, 27(7), 717-26.
- López, M.A.C., Fontaneda, I., Alcantara, O.J.G. & Ritzel, D.O. (2011) 'The special severity of occupational accidents in the afternoon: "The lunch effect"'. *Accident Analysis & Prevention*, 43(3), 1104-16
- López, M.A.C., Ritzel, D.O., Fontaneda, I. & Alcantara, O.J.G. (2008). 'Construction industry accidents in Spain'. *Journal of Safety Research*, 39(5), 497-07.
- Mandelbrot, B.B. & Hudson, R.L. (2004). *The (Mis)behavior of Markets: A Fractal View of Risk, Ruin, and Reward*. New York: Basic Books.
- Mangram, M. E. (2013). 'A simplified perspective of the Markowitz Portfolio Theory'. *Global Journal of Business Research*, 7 (1), 59-70.
- 'Mbiti, J., Lugogo, F., & Koech, R. (2018). 'Contribution of Credit Risk Management Strategies on Financial Stability: A Case of Commercial Banks in Kilifi County-Kenya'. *European Journal of Business and Management* 10 (17), 1-12.
- McShane, M. K., Nair, A., & Rustambekov, E. (2011). Does enterprise risk management increase firm value? *Journal of Accounting, Auditing & Finance*, 26 (4), 641–658. doi:10.1177/0148558X11409160
- Mojekwu, J.N, Agwuegbo, S. & Olowokudejo, F. F., (2011). The impact of insurance contribution on Economic Growth in Nigeria. *Journal of economics and international nance..* 3 (7), 444-451.
- Obalola, D. M., Akpan, T. I., & Olufemi, A. A. (2014). The relationship between enterprise risk management (ERM) and organizational performance: Evidence from Nigerian insurance industry. *Research Journal of Financial and Accounting*, 5(14), 152–161.
- Oke, M. O. (2012). Insurance sector development and economic growth in

- Nigeria. *African Journal of Business Management*, 6(23), 7016-7023.
- Omoke, P.C (2012). Insurance market activity and economic growth: evidence from Nigeria. *Asian Economic and Social Society*, 1(4), 245-253
- Occupational Safety and Health Act of 16 June (1999)*. International Labour Organization (ILO): Geneva, Switzerland, 1999.
- Organização Pan-Americana da Saúde no Brasil(2001). *Doenças relacionadas ao trabalho: manual de procedimentos para os serviços de saúde*; Organização Pan-Americana da Saúde no Brasil: Brasília, Brazil.
- Owolabi, A. O., Oloyede, F. A., Iriyemi, A. B., & Akinola, A. T. (2017). The impact of risk management on the profitability of insurance companies in Nigeria. *International Journal of Marketing and Technology*, 7(6), 1-26.
- Reynolds, S. J., Schultz, F. C. & Hekman, D. R. (2006). Stakeholder theory and managerial decision-making: Constraints and implications of balancing stakeholder interests, *Journal of Business Ethics*, 64,
- Richardson, D.B. (2008). 'Temporal variation in the association between benzene and leukemia mortality *Environ'. Health Perspect.* 116, 370–374.
- Rozenfeld, O., Sacks, R., Rosenfeld, Y., & Baum, H. (2010). Construction job safety analysis. *Safety science*, 48(4), 491-498.
- Sherratt, F., Farrell, P. & Noble, R. (2013). Construction Site Safety: Discourses of Enforcement and Engagement, *Construction Management and Economics*, 31(6), 623- 635.
- Siayor, A. D. (2010). *Risk Management and Internal Control Systems in the Financial Sector of the Norwegian Economy: A case study of DnB NOR ASA*. Tromsø University Business School, University of Tromsø.
- Simiyu, R. (2008). "A survey of techniques of credit risk management in microfinance Institutions in Kenya", unpublished MBA project, University of Nairobi.
- Smith, M.T.; Jones, R.M.; Smith, A.H. (2007). 'Benzene exposure and risk of non-hodgkin lymphoma'. *Cancer Epidemiol. Biomark*, 16, 385–391.
- Souza, W.J.; Medeiros, J.P. (2007). *Diagnóstico da qualidade de vida no trabalho (qvt) de frentistas de postos de combustíveis e suas interfaces com a qualidade dos serviços prestados*. *Rev. Gest. USP* 14, 71–89.
- Torbira, L. L., & Ngerebo-A, T. A. (2012). The impact of insurance risk management on fixed capital formation in Nigeria. *International Journal of Development and Economic Sustainability*, 1(4), 1–13.
- Walke, R. C. & Topkar, V.M. (2012). Risk Quantification Model for Construction Projects Using Score Model and Ev Analysis Approach. *International Journal of Engineering Research and Applications (Ijera)*. 2(3), 2312-2317.
- White, D. (2005). Applications of systems thinking to risk management: a review of the Literature. *Management Decisions*, 3(10), 33-45.
- Wu, F.; Zhang, Z.; Wan, J.; Gu, S.; Liu, W.; Jin, X. (2008). Genetic polymorphisms in hMTH1, hOGG1 and hMYH and risk of chronic benzene poisoning in a Chinese occupational population. *Toxicol. Appl. Pharmacol.* 2008, 233, 447–453.

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The provision of health care services is very critical, yet the delivery of healthcare services in Nigeria is characterised by widespread inefficiencies. Therefore, the research set out to examine the relationship between service quality and patients' satisfaction and the delivery of health care services in Plateau State. Specifically, the research evaluated the impact of tangibility, reliability, responsiveness, assurance, courtesy and empathy on patients' satisfaction in Plateau State. To achieve the research objectives, 399 copies of the questionnaire were administered to Out-patients of Plateau State Specialist Hospital, Jos and Jos University Teaching Hospital. Out of this number, 370 were properly filled and returned. The retrieved questionnaires were analysed using Multiple Regression Analysis. The results show that tangibility, reliability, responsiveness, assurance and empathy have significant impact on patients' satisfaction. However, courtesy has no significant impact on patients' satisfaction in Plateau State. The research therefore recommends that tertiary hospitals in Plateau State should make tangibles like physical buildings and equipment virtually appealing to patients, accurately maintain patients' records so as to keep satisfying the patients as well as being responsive to patients by offering prompt services and explaining treatments to the patients or relatives. Also, health care service delivery staff should assure patients by building trust in their skills and knowledge via the exhibition of professionalism and demonstrate high degree of courtesy in the delivery of health care services with a view to improving the patients' satisfaction at all time.

Key words: *Customer Satisfaction, health care delivery and Service Quality*