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PROCEEDINGS

THEME: 2023 AND THE NIGERIAN STATE IN TRANSITION:
Strategies for Political Stability, Security & Economic Development

WEDNESDAY 23RD - THURSDAY 24TH FEBRUARY, 2022

UNIVERSITY OF ABUJA - NIGERIA

NATIONAL CONFERENCE ON POLITICAL STABILITY, SECURITY & ECONOMIC DEVELOPMENT

THEME
2023 and the Nigerian State in Transition: Strategies for Political Stability, Security & Economic Development

DATE: Wednesday 23rd - Thursday 24th February, 2022

TIME: 10:00 am

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DAY ONE – Wednesday 23rd February, 2022

OPENING SESSION/PLENARY

Conference Registration	- 8:00am – 9:00am
Opening Prayer/Welcome Remark	- 9:00am – 9:15am
Institutional Brief/Chairman's Opening Remark	- 9:15am – 9:30am
Research Training	- 9:30am – 12noon
Launch Break/Group Photograph	- 12noon – 1:00pm
Plenary Session	- 1:00pm – 4:00pm
Policy Review Session	- 4:00pm – 5:00pm

DAY TWO – Thursday 24th February, 2022

OPENING SESSION/PLENARY

Conference Registration	- 8:00am – 9:00am
Opening Prayer/Welcome Remark	- 9:00am – 9:15am
Institutional Brief/Chairman's Opening Remark	- 9:15am – 9:30am
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Plenary Session	- 1:00pm – 4:00pm
Policy Review Session	- 4:00pm – 5:00pm

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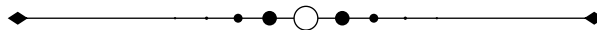
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Paper Title/Author(s)

Book of
Proceedings

Entrepreneurs Response to the 2020 Pandemic: Impact on Business Activities of SMEs in Lagos State

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Abstract

S mall and Medium Scale Enterprises (SMEs) have always been faced with various challenges in their journey to attain success. Researchers have identified these challenges to include inadequate funding, inadequate information management and recording keeping, poor infrastructure, lack of managerial skills and many others. With the 2020 pandemic, SMEs had to encounter a new set challenge that seems to threaten the very existence/sustenance of the enterprises. The 2020 pandemic came with attendant negative consequences on both human lives as well as the institutional structures and systems that have been put in place for the functioning of the economy. This study set out to examine the immediate and far-reaching impact that 2020 pandemic had on the activities of SMEs and also measures that could be put in place for the continuous survival of SMEs being the engine and catalyst of growth and development of economies of many countries. The research design for the study is Survey. To guide the study four research questions and three hypotheses were generated. The sample for the study were 101 SMEs located within the Lagos State Metropolis. The instrument for data collection is a questionnaire titled, "Questionnaire on Entrepreneurs Response to Pandemic 2020: Impact on Business Activities of SMEs in Lagos State" which had a Cronbach Alpha coefficient value of 0.60. Data collected from the study was analysed using regression statistical tool on the SPSS version 20. The result from the study revealed that entrepreneurs' response to 2020 pandemic significantly impacted the product/service package cycle, patronage, profitability and innovative tendency of SMEs. It is recommended that all efforts be geared towards creating an enabling environment for the sustainability of entrepreneurial activities of SMEs in the state as they have been identified as the engine of growth and development of all economies.

Keywords: *2020 Pandemic, enterprises, profitability, patronage, product delivery, service delivery, perspective, response*

Introduction

Entrepreneurial activity carried out by an entrepreneur is aimed at generating added value through creativity, innovation and recognition of opportunity. This entails the exploitation of novel ideas as well as planning and managing projects so as to create value and to achieve the desired objectives. Entrepreneurial activity involves the process of change, emergence and creation of business activities. It is an activity that occurs within a business context which is impacted by economic, political, legal, social, cultural and natural setting. Furthermore, entrepreneurial activity is not limited to new markets or new products alone, but also includes new processes.

In Nigeria as well as in many economies, entrepreneurial activities are carried out by Small and Medium Scale Enterprises (SMEs). Small and medium scale enterprises (SMEs) are generally regarded as the engine of economic growth and equitable development in developing economies. They are labour intensive, capital saving and capable of helping create most of the one billion new jobs the world will need by the end of the century. They are also perceived as the key to Nigeria's economic growth, poverty alleviation and employment generation (Agwu and Emeti, 2014). Recent observation revealed that SMEs generate more than 55% of the GDP and 65% of total employment in high-income countries: and more than 95% of total employment and about 70% of the GDP in middle-income countries. In a recent study conducted, it was revealed that entrepreneurial activities, such as new product/service creation, entrepreneurship education and training are significant to improving the performance of SMEs (Jevwegaga et al, 2018).

Umana (2018) reported that SMEs brings about increase in local value of product and services because most of their operations are based on the exploitation of indigenous technology. Small scale industries mostly use domestically produced materials inputs including tools, equipment and power which makes it possible for Nigeria to redirect its foreign exchange to other channels of development, especially in the present global economic crisis that seriously impacted on revenue base of the country. The products of these companies could also be exported to earn the country foreign exchange.

However, despite their acknowledged contributions to the economy, SMEs are faced with challenges and difficulties that seem to hinder their growth. According to numerous scholars, factors such as firm characteristics, entrepreneur characteristics, entrepreneurial factors, managerial skills, external environment factors, technology, management issues, marketing management strategies, customers' satisfaction, government policy, sociocultural factors and access to finance may affect (positively or negatively) the growth of SMEs (Ardjouman,, Hagan, Linyu and Liying, 2019)

Statement of Problem

Entrepreneurial activities of SMEs over years have been faced with lots of challenges. Some of the identified challenges of SMEs over the years has been; inadequate funding, inadequate information management and record keeping, lack of knowledge of differentiating business capital from a personal capital, poor infrastructure, and lack of management skills (Emezie,

2017). Despite these numerous challenges, many entrepreneurs have been able to glide over the rough weather and made successes of their businesses. Many scholars have reported that SMEs prospects this 21st century Africa include economic growth and development, source of employment and improvement in the welfare of people (Emezie, 2017). This study therefore examined the response of entrepreneurs towards 2020 pandemic and its impact on the business activities of SMEs in the manufacturing and service sector in Lagos State.

Objectives of the Study
The broad objective of the study is to examine the response of entrepreneurs to the 2020 pandemic and its impact on entrepreneurial activities of SMEs in Lagos State. Specifically, it:
   1. Is to investigate the impact of the 2020 pandemic on product/service package cycle of SMEs.
   2. Is to find out the impact of the 2020 pandemic on customers'/clients' patronage and profitability of SMEs.
   3. Is to examine the impact of the 2020 pandemic on entrepreneurial innovative tendency of SMEs.

Research Questions
The following questions were raised to guide the study:
   1. What is the level of response of small and medium scale entrepreneurs in Lagos State to the 2020 pandemic?
   2. What is the impact of the 2020 pandemic on the product/service package cycle of SMEs?
   3. What is the impact of the 2020 pandemic on customers'/clients patronage and profitability of SMEs?
   4. What is the impact of 2020 pandemic on entrepreneurial innovative tendency of SMEs?

Hypotheses
   1. Entrepreneurs response to 2020 pandemic has no significant impact on the product/service package cycle (PSPC) of SMEs.
   2. Entrepreneurs response to 2020 pandemic has no significant impact on customers'/clients patronage and profitability (PP) of SMEs.
   3. Entrepreneurs response to 2020 pandemic has no significant impact on entrepreneurial innovative (EI) tendency of SMEs.

Small and Medium Scale Enterprises and its Challenges: A Literature Review
Many researches have been conducted on entrepreneurial activities of SMEs and the challenges they encounter in their strive for growth and sustenance. The following are some of the findings from such studies. Bodunrin (2014), conducted a study on the Problems and Prospects of Entrepreneurship Activities and Business Management Practices in Nigeria. The study was basically an evaluative one in which data and literature were obtained from the analysis of the views, comments and opinions in books, articles in journals, magazines and newspapers, internet materials, as well as speeches and addresses in seminars, conferences and

workshops. It was essentially a library research. The study revealed a number of challenges SMEs grappled with which include the following; Shortage of infrastructure, unstable political system, poor transportation system, poor government policy, low response of financial institutions and inaccessible open market. However, a number of prospects were also identified from the study which include; employment generation, increased productivity through innovation, ensures increased resource utilization, facilitates the transfer/adaptation of technology and also to enables individuals to use their potentials and energies to create wealthy independence and status for themselves in the society. One of the recommendations from the study is that, government should promote, encourage and facilitate Non-Governmental Organizations (NGOs) to play effective role in the field of assistance to entrepreneurs. The activities and programmes should be directed and coordinated and such should fall within national policy objectives and framework to achieve maximum benefits of the best business management.

Similarly, in another study, conducted by Umana (2018) on the Roles and Constraints of SMEs in Nigeria's Development, among the identified challenges that SMEs encounter in the conduct of their activities includes; poor and inadequate start-up process, financial challenges, m**anagement problem, lack of infrastructural development, problem of low patronage and** a high propensity for the consumption of foreign goods as against their locally made substitutes. The study also recommended that there is need for SMEs owners to be committed to their business and be growth oriented rather than consumption oriented. In addition, there is need to promote informal education of SMEs owners through seminars and workshops, which should be organized regularly to create forum for interaction of SMEs owners/managers with other and thereby improving on their management capabilities.

Wang (2016) in a study on what are the biggest obstacles to growth of SMEs in developing countries? An empirical evidence from an enterprise survey, used the Enterprise Survey from the World Bank which covers data from 119 developing countries to carry out his investigation. This survey was centred on discovering biggest obstacles SMEs were confronting and the determinants that influence the obstacles as perceived by enterprise managers. The data collected from the study was analysed using Regression. The analysis revealed that the five most significant obstacles perceived by SMEs managers were access to finance tax rate, competition, electricity and political factors. Among those five obstacles, access to finance appears to be the biggest barrier, followed by competition. Furthermore, the key determinants that influence the obstacles among firms' characteristics are size, age and growth rate of firms as well as the ownership of the firm.

In another study conducted by Dana and Ratten (2017), on the international entrepreneurship in resource-rich landlocked African countries, it was revealed that formal and informal factors affect internationalisation rate of small scale enterprises in Nigeria, among the formal factors include export guidelines, licensing, and franchising policy. The informal factors include the universal view of African products or services, the nature of international markets, and ethnic factors. Therefore, like other countries, small scale enterprises are confronted with ethnic challenges when they attempt to expand beyond the borders of the country. Most of the ethnic

challenges that pertain to internationalisation include language barrier, communication signs, space management, and business ethnic difference. Owners and managers of small scale enterprises intending to go international must understand the ethnic differences before expanding beyond borders (Hitt et al., 2015).

Babandi (2017), in his paper on Critical Challenges Facing Small Business Enterprises in Nigeria: A Literature Review, concluded that the predominant challenge confronting small scale enterprises in Nigeria is a conducive environment which is necessary for businesses to grow and expand. Most of these enterprises are confronted with external environmental challenges and government policies that does not favor their growth. Though the government provides infrastructure, financial institutions, regulatory framework, economic and political stability, reduction of crime rate and corruption, the crucial challenge for the Nigerian government is to initiate policies that would support small scale enterprises because they aid the economy by providing the people with employment opportunities and many other benefits.

Methodology

The research design for the study is Descriptive (survey). The population comprises all small and medium scale entrepreneurs in Lagos State. Through Simple random sampling procedure, 101 SMEs in Lagos State participated in the study. Data for the study was collected with a structured questionnaire titled "Entrepreneurs Response to Pandemic 2020: Impact on Business Activities of SMEs in Lagos State" which had a Cronbach reliability Alpha coefficient 0.60. The instrument had two sections, the first section requested for the bio data of the entrepreneurs, such as gender, marital status, age and type of enterprise. The second section was made up of 20 items requesting entrepreneurs' response to the pandemic, product /service package cycle, patronage and profitability, and entrepreneurial innovative tendency. The response format is the likert type, ranging from strongly disagree to strongly agree, on a rating scale of 1-4. The instrument used for data collection was hosted on the internet and the link for completing was sent out to the target participants. Descriptive and inferential statistical tools which include frequency, percentages, and regression analysis were used to analysed data collected from the study. The Statistical Package for Social Scientist (SPSS) version 20 is used to analyse the data collected. All hypotheses were tested at 0.05 level of significance.

Data Presentation and Analysis
Socio-Demographic Analysis of Respondents
Table1: Classification of Respondents by Gender and Age

Gender	Frequency	Percentage	**Marital Status**	Frequency	Percentage
Male	41	40.6	Single	70	69.3
Female	60	59.4	Married	31	30.7
Total	101	100	Total	101	100

Table 1 reveals the respondents from the study by gender and marital status. Evidence from the table shows that 60 (59.4%) females and 41(40.6%) males participated in the study, while for

the marital status, the singles that participated in the study were 70(69.3%) and married were 31(30.7%). The implication of this is that a large percentage of females who are also unmarried are increasingly attracted to entrepreneurship in recent times unlike in the past when it was dominated by their male counterparts.

Table 2: Classification of Respondents by Age and Type of Enterprise

Age	Frequency	Percentage	Enterprise	Frequency	Percentage
20years & below	8	7.9	Manufacturing	12	11.9
21-40 years	76	75.2	Service	59	58.4
41 years& above	17	16.8	Others	30	29.7
Total	101	100	Total	101	100

Table 2 reveals the respondents from study by age and type of enterprise engaged with. The table shows that a large number of the respondent fall within the 21-40 years 76 (65.4%). It is impressive to see that 8 (7.9%) of the respondents were 20years and below. The effort of the Federal Government of Nigeria at instilling entrepreneurial mindset into young people is yielding positively. This seem to justify the inclusion of 34 trade subjects into the curriculum of secondary schools some years back, which was to serve as a measure at eradicating unemployment among youths. Furthermore, the table also reveal that a higher number of the entrepreneurs offer services, 59 (58.4%), those in the manufacturing sector were 12 (11.9%) which accounts for the lowest percentage and others (Artisan, traders etc.) were 30 (29.7%) In recent times, many entrepreneurs are now rendering services that are highly creative and innovative which are assisting the populace to overcome the challenges and difficulties which are emerging in our daily life activities and for the continuous survival of man.

Analysis of Responses
This section presents the results of the three hypotheses raised and tested in the study.

Test of Hypotheses
Hypothesis 1: Entrepreneurs response to 2020 pandemic has no significant impact on the product/service package cycle (PSPC) of SMEs.

Table 3: Regression Analysis of the Impact of 2020 pandemic on the Product/Service Package Cycle (PSPC) of SMEs.

Model Summary			Anova		Coefficients	
Model	R	R Square	F	Sig.	B	Sig.
1	.554[a]	.306	43.737	.000[b]	26.814	.000

*Predictors: (Constant), PSPC. (**Model Summary,** Anova**).**   Dependent Variable: Entrepreneur's Response.*
(*Coefficient*).

Table 3 reveals the indices of the simple linear regression analysis of the impact of 2020 pandemic on product/service package cycle (PSPC) of SMEs. The linear correlation coefficient of R and R^2 are. 554 and .306 respectively. The R^2 indicates that 30.6% of the total variation in the entrepreneurs' response to 2020 pandemic can be explained by PSPC. In addition, other results from the table shows the that F-value (43.737) and the B-value (26.814) are both significant. The result of the analysis shows that entrepreneur's response to 2020 pandemic has a significant impact on PSPC of SMEs. Thus, the stated hypothesis is rejected.

Hypothesis 2: Entrepreneurs response to 2020 pandemic has no significant impact on customers'/clients' patronage and profitability (PP) of SMEs.

Table 4: Regression Analysis of Impact of 2020 Pandemic on Customers/Clients Patronage and Profitability (PP) of SMEs.

Model Summary			Anova		Coefficients	
Model	R	R Square	F	Sig.	B	Sig.
1	.669	.448	80.254	.000	36.647	.000

*Predictors: (Constant), PP. (**Model Summary,** Anova**).** Dependent Variable: Entrepreneur's Response. (**Coefficient).*

Table 4 reveals the indices of the simple linear regression analysis of the impact of 2020 pandemic on customers'/clients patronage and profitability (PP) of SMEs. The linear correlation coefficient of R and R^2 are .669 and .448 respectively. The R^2 indicates that 44.8% of the total variation in the entrepreneurs' response to 2020 pandemic can be explained by PP. In addition, other results from the table shows the F-value (80.254) and the B-value (36.647) are both significant. The result of the analysis shows that entrepreneurs response to 2020 pandemic has a significant impact on PP of SMEs. Thus the stated hypothesis is rejected.

Hypothesis 3: Entrepreneurs response to 2020 pandemic has no significant impact on entrepreneurial innovative (EI) tendency of SMEs.

Table 5: Regression Analysis of Impact of 2020 Pandemic on Entrepreneurial Innovative (EI) Tendency of SMEs.

Model Summary			Anova		Coefficients	
Model	R	R Square	F	Sig.	B	Sig.
1	.573	.328	48.376	.000	32.805	.000

*Predictors: (Constant), EI. (**Model Summary,** Anova**).** Dependent Variable: Entrepreneur's Response. (**Coefficient)*

Table 5 reveals the indices of the simple linear regression analysis of the impact of 2020 pandemic on entrepreneurial innovative (EI) tendency of SMEs. The linear correlation coefficient of R and R^2 are .573 and .328 respectively. The R^2 indicates that 32.8% of the total variation in the entrepreneurs' response to 2020 pandemic can be explained by EI. In addition, other results from the table shows the F-value (48.376) and the B-value (32.805) are both significant. The result of the analysis shows that entrepreneur's response to 2020 pandemic has a significant impact on EI tendency of SMEs. Thus, the stated hypothesis is rejected.

Discussion of Findings

The statistical result from the first hypothesis raised to guide the study, revealed that entrepreneurs' response to 2020 pandemic had a significant impact on the product/service package cycle of SMEs. One of the statements contained in the instrument for data collection, requested for the respondents to agree or disagree with the statement "purchase of raw material during the pandemic was difficult". Out of a total number of 101 respondents that participated in the study, 71(70.3%) agreed with the statement above. During the period of the total lockdown of the nation and economic activities were grounded to a halt, producers/providers of inputs could not carry out any activity, some of them who depended on foreign inputs also had no access to such as it was a global phenomenon. Furthermore, when there was a partial and total lifting of the lockdown, a good number of enterprises still encountered difficulties in fully resuming economic activities. This made the product and service package cycle of many SMEs very difficult if not impossible to complete. Since this cycle cannot be completed without the necessary intermediary inputs, in order to have a final output for SMEs to put forth for sale in the market, the patronage and profitability of SMEs will also be negatively affected.

Following from the result revealed from the first hypothesis, the statistical result from the second hypothesis, also revealed entrepreneurs' response to 2020 pandemic had a significant impact on patronage and profitability of SMEs. "Consumer demand due to the pandemic was low because of the Covid-19 protocols" was one of the statements respondents were to agree or disagree with. Out of a total number of 101 respondents that participated in the study, 63 (62.4%) agreed with the statement above. Since entrepreneurs could not complete product and service package cycle, hence availability of products for sale and service offerings were hampered, the level of patronage and profitability of SMEs was greatly affected. In addition, the low/downward turn of economic activities also led to a low supply of money in circulation and hence the purchasing power of the many consumers decreased drastically.

Hypothesis three raised to guide the study states that "entrepreneurs' response to 2020 pandemic has no significant impact on entrepreneurial innovative (EI) tendency of SMEs". The statistical result revealed a significant impact. One of the statements raised to measure the impact was "innovation tendencies are best displayed by entrepreneurs when challenges come up during the business life". Out of a total number of 101 respondents that participated in the study, 86 (85.1%) agreed with the statement above. This evidence proves that entrepreneurs who have creative and innovative mind set can actually weather the storm when they are faced with challenges in the environment (economic, political, social, technological etc.) of their

business. However, looking at another statement, "my business was handicapped by the 2020 pandemic, we could barely survive the challenge that came with it", out of a total number of 101 respondents that participated in the study, 45(44.5%) disagreed with the statement above while 56 (55.5%) agreed. This evidence proves that a significant percentage of respondents (entrepreneurs) in the study were affected by the pandemic and they couldn't introduce/display creative and innovative strategies to rise above the prevailing unexpected circumstance. Furthermore, entrepreneurs in Nigeria and particularly in Lagos State because this is the area covered by the study and also the Heart of commercial activities in the nation, need to more proactive and also leverage on the synergy that could be a generated as a result of teamwork and networking since they agree that entrepreneurial innovative tendencies are best displayed in the midst of challenging situations.

Conclusion

The study investigated entrepreneurs' response to 2020 pandemic and its impact on business activities of SMEs in Lagos State. The statistical tool used for the analysis of the data collected from the study was linear regression. The result from the study revealed a significant impact of entrepreneurs' response to 2020 pandemic. The variables used to determine the impact of the response were three; product/service package cycle, patronage/profitability and entrepreneurial innovative tendency. In conclusion the impact of the 2020 pandemic on the product/service cycle was significant that entrepreneurs found it very difficult to complete production/service processes and procedure for the final output which was to be supplied to the market. The inability to meet up resulted into low patronage and profitability. Entrepreneurs captured from the study agreed that innovative tendencies were best displayed during challenging periods, however a good number them found it difficult to display this during the pandemic. Therefore, the measure required to put in place by entrepreneurs is to embrace the mind set of been creative and innovative in other to glide over both the current and future challenges that will likely arise in the life cycle of all businesses.

Recommendations

1. The study recommends that all efforts be geared towards creating an enabling environment for the sustainability of entrepreneurial activities of SMEs in the state as they have been identified as the engine of growth and development of all economies.

2. Entrepreneurs should anticipate and participate in the changing economies most nations are encountering, as these changes present themselves as both challenges and opportunities. Moreover, globalisation has come with certain benefits such as increased flow of capital, improved products at low prices, collaboration and shared resources, widespread knowledge and technology and rapid technological advances that entrepreneurs can take advantage of, to both overcome challenges and position themselves to seize and utilise the opportunities presented.

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Differential Item Functioning and Implications for Testing in Nigeria Education System

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A b s t r a c t

It is critical to analyze and assess differential item functioning (DIF) by different demographic groups, particularly gender and cultural groupings, in order to produce appropriate test items. It is essential to examine the extent to which test items work differently among subgroups when selecting test items. DIF analysis is one of the most modern ways for removing irrelevant parameters and sources of bias of any kind so that a test can produce valid results. As a result, it is recommended that test developers and policymakers evaluate and exercise caution in fair test practice by devoting more effort to more unbiased test development and decision making. In educational testing, examination bodies should employ the Item Response Theory, and test developers should be aware of test items that may induce bias in response patterns between male and female students, or any other sub-group of interest.

Keywords: *Differential Item Functioning, Test Fairness, Item Bias, Item Characteristic Curve, Item Response Theory.*

Introduction

Achievement tests are required by educational institutions in order to determine the desirable features of its examinees. Testing has become one of the most essential criteria by which a society judges the quality of its educational system's output. Today's classrooms are made up of a diverse group of students with varying abilities, socioeconomic levels, cultures, and ethnic backgrounds. Teachers' jobs are made more difficult and demanding by the diversity of their students. In a diverse classroom, each teacher is expected to differentiate content to fit the requirements of the students. Students' school performance has consistently been linked to their gender and geographic area. Gender, according to Kanno (2008), is an analytic notion that describes men and women's sociological roles, cultural duties, and expectations in a specific society or cultural environment. "Gender describes the personality traits, attitudes, behavior, values, relative power, influence, positions, and expectations (femininity and masculinity) that society ascribes to the two sexes on a differential basis. Ezeh (2013). As a result, gender is a psychological concept as well as a cultural construct used by society to distinguish between male and female roles, behavior, mental, and emotional characteristics. One of the reasons for examining test takers in schools is to provide test results which are often used in making important decisions such as selection, promotion and certification. Based on test scores, schools choose who are to be promoted, external examining bodies decide who are to be certificated, higher institutions decide who are to be admitted and for which course, recruiting organisations choose who are to be selected. Since the decisions made on test scores are extremely significant to the individual and the public, these should reflect the most accurate estimates of their abilities and skills.

Over time, tests have been used to evaluate students' academic performance. The aim of tests in the academic system is to determine the traits and attributes of test takers. Terminal examinations are commonly conducted in Nigeria from one stage to the next, especially at the primary and secondary school levels. These examinations are being conducted by different examination bodies like West African Senior Secondary Certificate Examination Council (WASSCE), National Examinations Council (NECO, State Ministry of Education), National Business and Technical Examination Board (NABTEB), and so on. Different test takers of different levels of ability with different languages, cultures, sexes and religions are made to undertake these examinations. Considering the significance of examinee ratings in making important decisions, educational evaluation aimed at enhancing the decency of tests or assessments across subgroups of test takers is critical. The examination contains a collection of structured tasks to which candidates or test takers are allowed to respond individually; the results of this examination evaluate each candidate to provide a statistical correlation to their abilities (Nworgu, 2011).

Concept of Differential Item Functioning

Differential item functioning had previously been referred to as "item bias" in the literature since it causes one group to have a higher scale score than the other. Holland and Thayer (1988) established the term "differential item functioning" to provide statistical methodologies for isolating ordered comparisons in execution by subgroups of a population at both the test and item levels (Osterlind and Everson, 2009). When examinees with the same ability have

different probability of responding well to an item based on group membership, this is referred to as differential item functioning (e.g., male or female). Based on the movement of disparities between groups over the ability spectrum, there are two types of DIFs (i.e., total test score). When one group consistently performs better or worse than the other across the ability spectrum, uniform DIF occurs. The heading of the differentiation moves throughout the ability continuum, assuming that the group member and the ability are linked in any situation. This is referred to as non-uniform differential item functioning in this scenario. A substantial amount of unequal item functioning in test bits demonstrates a lack of construct validity in test items. Additional nuisance constructions that function differently from one group to the next are measured by the items with differential item functioning. Disturbance constructions can jeopardize the most accurate assessment of a subgroup's output (Park, Pearson and Reckase, 2005). Differential item functioning, according to Doolittle and Cleary (1987), is a condition in which the likelihood of correctly responding to a question is linked to group membership among examinees of similar skill levels. In terms of probability, Warm (1978) used the following equation to characterize differential item functioning:

$$Pa\,(\theta = K) \neq Pb\,(\theta = K). \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\text{equ}\,(1)$$

In the equation above, A and B address two subgroups, whereas addresses ability or latent characteristic, which would be equal to K from every group membership. The requirement states that an item should be differentially working if the chance of people from bundle A ability (K) getting an item right is not equal to the probability of people from group B ability (K). When various subgroups that are composed in terms of the fundamental estimation alter their excess on an assistant estimation, such as details on the material to the degree that the elements are definite, DIF arises. DIF evaluations are aimed at detecting objects that are influenced by assistant estimations or, more shockingly, that behavior phenomenal, additional points in various subgroups. This term is now only used when objects have been interpreted as differentially operating by quantifiable strategies, and the protection can be blamed for creating unimportant properties of the object (Lam, 1995). Furthermore, Differential item Functioning depicts differences in individual functioning across items and groups of people. Differential Group Functioning (DGF) is a form of DIF that shows the differences in functioning between item classes and individual classes, as well as differential item functioning.

Differential item functioning occurs when people from various groups (usually gender identity or character) with the same latent qualities (ability/latent) have differing probabilities of responding to a questionnaire or survey (DIF). Differential Item Functioning is demonstrated when and only when people from various social groups with a similar secret verifiable ability have a varied likelihood of answering a question. Factor relates to test items that establish demands that are different from those given by the test designs, such as changing meanings or recommendations for people from different groups or semi-groups. Differential item functioning occurs when the difficulty level (b), discrimination level (a), or lower asymptotes (c) of a test item vary between groups of test takers, as defined by item response theory (IRT). If a subset of the general being tested responds differently to a few test items, it suggests the

items are frequently more difficult for one group than the other. 'Differential item functioning happens when an item is not equally difficult or popular in maximal performance tests for groups that have been matched in terms of the construct being measured' (Lincare, 2011).

The society (uban/rural) where an individual finds himself or herself has a significant impact on the academic performance over the course of one's normal daily life. People who grow up in a wealthy community gain higher levels of insight than those who grow up in a poor society. Larger cities are exceptional, with learning centers, skilled teachers, excellent paths, and exceptional communication networks, allowing them to stand apart from their national counterparts where such resources are insufficient or by any means inadequate.

According to Akubuiro (2002), referenced by Anagbogu (2009), metropolitan learning environments provide more access to socio-cultural and economic facilities and services, resulting in high-performing learners. Rural learners who have not yet been exposed to these beneficial experiences and crucial physiological functions find it difficult to overcome any hurdles along these lines, resulting in surprising results in their altered subjects. Understanding the relative strength and weakness of the examinee groups on the various skills and talents that the test items measure requires identifying the causes of DIF. Item content, item type or format, item context, content, and cognitive factors linked with objects are all plausible origins for such trends. By examining the statistical evidence of item level DIF in light of such item qualities, it may be feasible to obtain significant insight into the likely causes of DIF. In practice, items that exhibit significant DIF are not always removed from future tests, but they are among those that must be thoroughly examined before being used again. When people with the same skill level but belonging to different groups are seen to have differing chances of answering correctly to an item, this is known as differential item functioning (Hambleton, Swaminathan, & Rogers, 1991). That is, after they are matched on the ability that the test was designed to measure, systematic disparities in performance between different groups of examinees are detected (French & Finch, 2010).

Techniques for Detecting Differential Item Functioning
In this section, we review the most commonly used statistical methods that have been developed to detect DIF (Magis et al., 2010). We focus on methods for tests with dichotomous items, which include binary items graded as true (1) or false (0), or as correct (1) or incorrect (0), on multiple-choice or free-recall tests. Methods for detecting DIF on other types of items (e.g., those graded on a rating, ranking, or partial-credit scale) are similar but beyond the scope of this paper. Generally speaking, statistically detecting items exhibiting DIF requires that we match students on relevant knowledge (e.g., using their total scores on the assessment being evaluated as an estimate of ability, or latent trait), and then test whether students who are matched for ability but from different groups perform similarly on a given item.

The methods for detecting DIF vary depending on how students are matched. Classical methods (e.g., Mantel-Haenszel statistic and logistic regression) match students based on their total scores; methods based on item response theory (IRT) models, such as the Wald $\chi 2$test (also known as Lord's test; Lord, 1980) and Raju's area test, consider student ability as a latent

variable estimated together with item parameters in the model (Camilli and Shepard, 1994). Generally, IRT methods are computationally more demanding and require larger sample sizes. However, IRT methods are more precise than others, because they more accurately estimate the latent trait instead of using total score as the proxy.

In this paper, we discuss methods based on IRT models (Lord, 1980; Raju, 1990; Thissen et al., 1994), which more accurately estimate both item characteristics and student abilities but require relatively larger sample sizes.

Item response theory as methods for detecting differential item functioning
Item response theory (IRT) is an effective approach to examine differential item functioning. Item bias or differential item functioning, in which one group responds differently to an item than another group, is an essential tool in item analysis. Researchers can use information about the item's location or the underlying trait to identify or determine the levels not assessed or explicitly measured by the instrument. There are various graphical illustrations to examine the item's location along the underlying latent trait (θ) after estimating item properties. DIF occurs when an item performs differently for respondents in different groups. In other words, members from different populations who have equivalent levels of a latent feature (e.g., physical functioning) have a varying chance of answering to an item. Differential item functioning items pose severe danger to the validity of instruments used to assess members of various populations or groups. Instruments with such items may have lower validity for between-group comparisons since their score could indicate a variety of characteristics other than those measured by the scale (Thissen, Steinberg, and Wainer, 1988). The possibility that some test items are unfair to one subgroup or another has become a source of worry for both test developers and test users. The most extreme definition of item and test bias states that a test is biased if the means of two groups of interest diverge. The obvious flaw in this definition is that other variables, in addition to item bias, have a role in these disparities.

Item response theory is the most common framework in which differential item functioning is characterized (IRT). The item trace line allows you to compare the responses of two different groups to the same item, such as reference (e.g., control) and focal (e.g., treatment). Item parameters are expected to be invariant to group membership in the context of IRT (in contract to classical test theory where parameter estimates and statistics vary with the sample being measured). As a result, the difference between the trace lines, calculated independently for each group, demonstrates that at the same level of the underlying trait, respondents from the reference and focal groups have differing probability of approving the item. DIF is defined as when the conditional probability, $p(x)$, of an item's correct response for the same level on the latent variable differs between two groups (Camilli and Shepard, 1994).

Dichotomous data, generally examined for one or both of two types of DIF. Uniform differential item functioning (DIF) tends to advantage one group over the other across the whole setoff ability. Non-uniform differential item functioning (DIF) however, exists when there is an interaction among membership within a group and ability level (Narayanan & Swaminathan, 1996). Within item response theory (IRT), dichotomous item responses are often modelled using some variant of the general curvilinear three parameter logistic (3-PL) model shown.

$$P(\theta)= (c+1) \frac{e^{ai(\theta-bi)}}{1+e^{ai(\theta-bi)}} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots.equ\ (2)$$

In this model, *ai* is the parameter for the item discrimination, *bi* is the parameter for the item's difficulty, and *ci* is the item's pseudo-guessing parameter where *θs* is the parameter for examinee's capacity. Here, the probability of an examinee's correct response to the item is dependent solely on the three item parameters and the one-individual parameter and, disregarding error, should be the same regardless of how the examinees are grouped (Embretson and Reise, 2000). Inside this structure, uniform differential item functioning is seen when two or more groups vary on item difficulty parameter after connecting on ability. Be that as it may, if the group differ, either all items being equal or also, on the item discrimination parameter, at that point non-uniform DIF is obvious (de Ayala, 2009).

A graphical portrayal of uniform and non-uniform DIF can be acquired utilizing separate item characteristic functions for every one of the two gatherings. Figure 1 shows an illustration of uniform DIF. In this figure, the two item characteristic functions (ICF) values contrast just in difficulty parameter. The difficulty parameter in this example has a value of -0.5 for Group 2 (the reference group) and a value of 0.5 for Group 1 (the focal group), indicating that this item is harder (or takes more of the trait to answer correctly) for Group 1 than Group 2. Since this is the only parameter that varies between the groups for this item, Group 2 has a higher probability of correctly answering the item than Group 1 across every level of ability
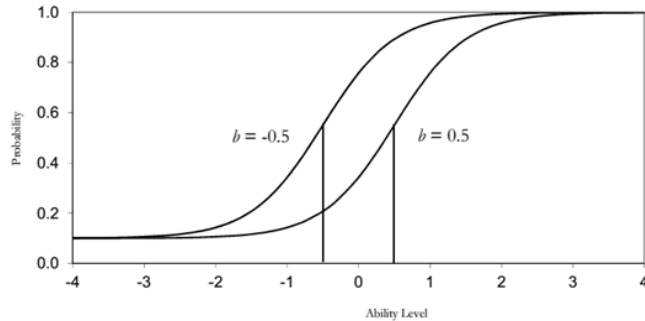
Figure 1. Probability curves for two groups on an item that displays uniform DIF.

The item characteristic curves (ICC) displayed will not meet except that they asymptote to the same values (in this example at .10 and 1).

Figure 2 is an example of non-uniform DIF where not only is there a difference between groups in probability in correctly answering the item but the group having the advantage changes at some point within the ability range. Here, one group has a higher probability of correctly answering the question at end of the scale and the other group has a t the other (Walker, 2001). In this example, the item characteristic function values differ in terms of guessing parameters, as well as the difficulty parameter. The item characteristic curve in this example show that, at the lower levels of ability, examinees in Group 1 have higher probability

of correctly answering the item than those in Group 2, where this trend is reversed at the higher end of the ability scale. Some researchers have termed non-uniform.
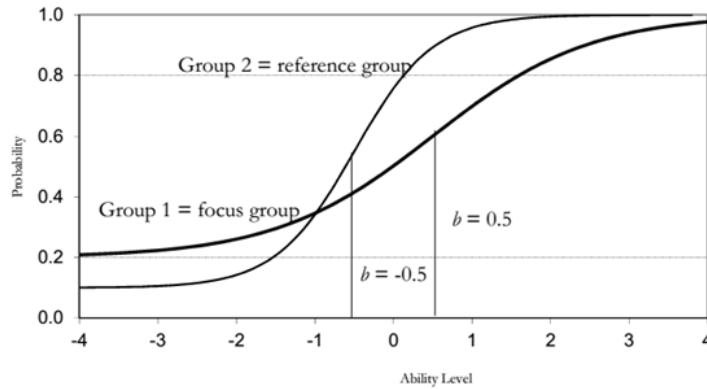
Figure 2. Probability curves for two groups on an item that displays non-uniform DIF.

When using the item characteristic curve to evaluate our test item under item response theory, different types of curves can be derived for each item and they can easily be interpreted foe more objective item analysis in our validation processes. It is also necessary to note that

1. The steeper the curve, the better the item can discriminate
2. The flatter the curve, the less the item is able to discriminate since the probability of correct response at low ability level is nearly the same as it is high ability levels
3. The steepness of the curve in its middle section indicates the rapidity with which the probability that examinee responding to the question correctly changes as a function of ability

The location of the curve along the horizontal axis (as defined by the point at which the 0.5 probability level bisects the horizontal scale) indicates the difficulty of the item.

Figure 1-7 shows the item characteristics of the items of the 2016 NECO Mathematics test. Jimoh (2021)

Figure 2: Item Characteristics Curve for Item 1

Figure 3: Item Characteristics Curve for Item 2

Figure 4: Item Characteristics Curve for Item 3

Figure 5: Item Characteristics Curve for Item 4

Figure 6: Item characteristics curve for item 5

Differential item functioning can detect item bias if and only if the following assumptions are true:

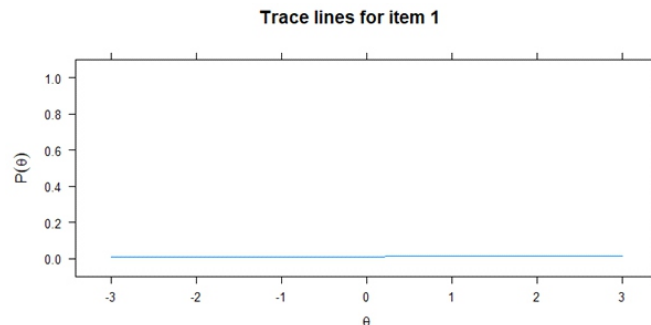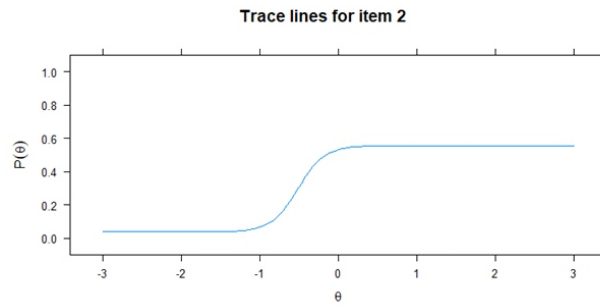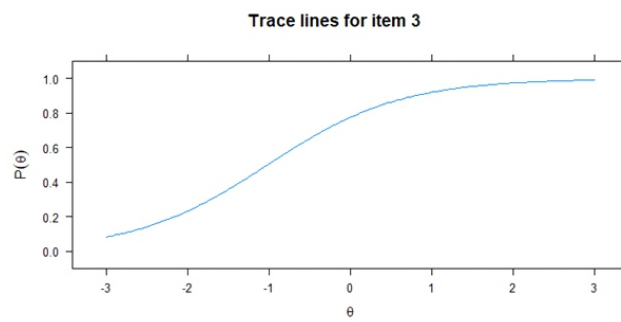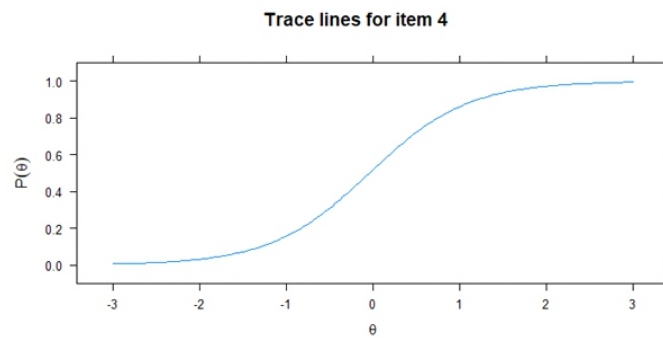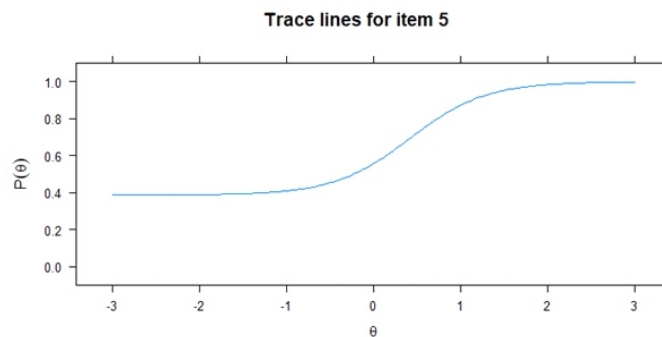1. That the test items are all measuring the same thing. What if there are numerous characteristics at play? A math examination, for example, may include items in both numeric and essay formats. A tester with a poor math talent but a high reading skill may be able to properly answer tough math problems expressed in numeric form but not easy questions expressed in essay form. Because practically all assessments require reading skills, this dual-trait condition is inescapable. DIF, on the other hand, may not be beneficial when an ability incorporates numerous features other than content and language, such as A and B. On A, the test item may be biased against men, but on B, it may be biased against women.

2. That the entire test is fair, with only a few items being biased. As a result, the overall score is evaluated to divide testers into high and low ability groups. What if, on the other hand, more than half of the items are biased?

3. That the abilities are spread equally across groups. As a result, rather than underlying group discrepancies, some test score variations are due to unfair questions. Those who question this assumption are sometimes labeled as "racists," "sexists," or "narrow-minded." However, rather than being settled by cultural relativism, whether particular groups have intrinsic advantages on certain tasks should be subjected to scientific inquiry.

Implication of differential item functioning or biased item in Educational System

Bias can result in systematic errors that distort the inferences made in any selection and classification. As mentioned earlier, there exist a number of examination bodies in Nigeria and these bodies cater for candidates of various backgrounds all over the country. Candidates who participate in the examinations conducted by these examination bodies are in different settings and therefore differently toned for personal and environmental reasons. As a result of this, the problem of test item bias cannot be ruled out in these examinations. It is expedient that the examining bodies examine the degree of bias in their examinations. It has been claimed that some of the national examinations unfairly favour examinees of some particular groups eg, cultural or linguistic groups to the extent that it is now believed that a particular section of the country perform most woefully in these national examinations.

A critical look at the perception of people on such national examination in Nigeria indicates the serious nature of differential item functioning. For a test to be free from bias, it must be unidimensional. Unidimensionality is the assumption that an item is intended to measure a single attribute or skill for all examinees. The assumption of unidimensional is the most complex and most restrictive assumption of item response theory. In general, unidimensionality means that the items measure one and only one area of knowledge or ability. Lumsden (2003) provides an excellent method for constructing unidimensional tests. "Item response theory provides a test of item equivalence across groups. We can test whether an item is behaving differently for blacks and whites or for males and females", for example. Jimoh (2021) carried out a study on gender and culture-related differential item functioning in 2016 National Examinations council Mathematics multiple choice questions in

Nigeria. He discovered that that the items of 2016 NECO Mathematics multiple choice test functioned differentially among Hausa/Fulani, Igbo and Yoruba cultural environments.

Conclusion

Test results are utilized to determine or take judgments and recommendations in our schools, biased items and differential item functioning are particularly relevant in our educational systems. Differential item function is concerning because, once examinees have been matched based on their interest in a psychological characteristic, test-takers from different demographic groups, such as gender, have varying chances of passing a test item. When learning opportunities are not evenly distributed, test takers from different categories may be expected to differ in ability at times. In these circumstances, item impact rather than item bias is frequently employed to explain the outcome. DIF analysis is one of the most effective methods for removing extraneous elements and sources of bias from a test so that valid and reliable results can be obtained.

Recommendations

Test experts and developers must always put in place quality control mechanism so that they can deliver high quality test item; educational measurement experts in Nigeria should rise to the challenges placed by the measurement community and be fully aware of the usefulness of IRT in constructing and scoring of tests or examinations and examination bodies should organize training for item developers on the construction of valid, reliable and fair test especially in the area of DIF. In addition, items flagging DIF should be revised, modified or eliminated from the test

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The Influence of Mass Media in Promoting Good Governance Study of Some Selected Local Governments in Kano State: Nigeria

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Abstract

The research examines the influence of Mass media in promoting good governance. The media has constructive role to play in the society. The media are mouth piece of social issues which help us to estimate the reality of life. The media are expected to report and compose accounts of events. They are also expected to analyze issues and facts that is in line with the need and interest of social justice. Mass media have a special place in our live today, individually or collectively they serve the various needs of audiences who have specific preference. Each medium is powerful in its own rights in serving people and each has gone through stages of development (Hassan, 2013, p.107). Good governance is characterized by predictable and enlightened policy making; a bureaucracy characterizes with a professional ethos; an executive arm of government that is always accountable for its action Andrews, (2008). The paper therefore adopted agenda setting and Social responsibility theories. Survey research methodology was used among the six Local Governments in Kano State: Bagwai, Gabasawa are representing Kano North, Aginji and Kibiya are representing Kano South, Dala and Nassarawa are representing Kano Central. Findings revealed that for the media to effectively contribute to Good Governance, must uphold professional ethical rules set up through self-regulation, and must be accountable to the people. Media must have a favourable legal environment which will give them freedom and independence. The study recommends that the media organization must be objective in their reporting, the government must allow the media to function effectively. The media can apply the basic principles of patriotism, accountability, transparency and objectivity in the discharge of their duties

Keywords: *Mass Media, Good Governance, Transparency, Accountability*

Introduction

Mass media uses different technologies in educating, informing, entertaining and captivating the society. It is the fastest and easiest means of reaching out to the general public. It is importance in the society has made it reliable source of information (Bitner, 2003). The general public strongly agreed that mass media play significant role in their day to day activities. The media is the most powerful tools of communication. They help in promoting what is right in any society. (Curran, 2002)

The media has a constructive role to play in the society. The media are mouth piece of some social issues which help us to estimate the reality of life. The media are expected to report and compose accounts of events, responsible to inform people about societal projects and programmes design by policy makers for them to be enlightened. The nature of the media in our society is to inform, educate and entertain, interpret to create amusement and mobilize the general public on certain issue. Before a media can operate effectively certain factors determine their freedom Types of ownership, type of political system, co-opting, judiciary, gives the media Freedom to function effectively. There are so many agencies which regulate the activities of the mass media for example Federal Communications Commission (FCC) in the United State of America, while in Nigeria, National Broadcasting Commission (NBC), National Films and Video Censor Board (NFVB).

Mass media play significant role in good governance, it can make or break a society by the way and manner it set agenda. Mass media has a disproportionately role and influence in shaping an environment. The mass media play significant role in good governance (UNESCO, 2005). The media are the only institution with the capacity to allow and facilitate regular checks and assessing the activities of government and also assist in bringing public discussion. The nature and character of the media greatly impacts on the governance process in any society. Governance is the manner in which power is executed in the management of a country's social and economic resources for development. Government is also the process whereby societies or organizations make important decisions, determine when they involve and how they render account ((Doornbos, 2001, Grindle, 2004). Good governance is characterized with transparency, rule of law, participation, effectiveness, equity, efficiency, accountability, and strategic vision in the exercise of political, Economic, and administrative authority (UNDP, 2002, 2)

Statement of the Problem

Mass media has universally positive effects on the development of democracy and good governance in Kano State, it is important to look at the nature and consequences of how the media operate in Kano State without Government restrictions. It is also essential to identify the enabling and constraining factors that influence the ability of the media to operate and have impact on government activities in the socio-political context of Kano State. It is based on the above that the paper intends to find out the influence of mass media in promoting good governance, with specific reference to some selected Local Governments in Kano State, Nigeria.

Aims and Objectives

The aim of the study is to examine the influence of mass media in promoting good governance.

The following are the objectives:

1. To examine the extent to which mass media promote good governance in some selected Local Governments in Kano State.
2. To investigate the challenges mass media face in reporting the government activities in some selected Local Governments in Kano State.
3. And see how Mass media promote good governance in some selected Local Governments in Kano State.

Research questions of the study

1. To what extent does mass media promote good governance in some selected Local Governments in Kano State?
2. What are the challenges Mass media face in reporting Government activities in some selected Local Governments in Kano State?
3. How does mass media promote good governance in some selected Local Governments in Kano State?

Brief literature review

Mass media provides information available. Transparency ensures that information is available and can be used to measure the authorities' performance and to guard against any possible misuse of power. (Pope, 2000; Bellver, and Kaufman, 2005). The media using various communication technologies are the outlets for disseminating large amounts of information to reach; large heterogeneous and widely dispersed audiences. The traditional role of the media as reporters of facts is therefore the cornerstone to transparency and accountability in the public sector, because the functions of the media are to give the public necessary information and to make proper decision.

The Role of Media in Good Governance

Media plays gigantic role in promoting a healthy democracy and fostering good governance. As watchdog and information disseminator, media has been serving the function of the heart of any democratic society and good governance. (Ifeoma, 2013). In contributing to democratization and good governance, the media is to act as a watch dog over the powerful, promoting accountability, transparency and public serenity. Media serve as a civic forum for political debate, facilitating informed electoral choices and actions; and act as an agenda setter for policy makers. Strengthening government responsiveness for instance to social problem and to exclusion. The mass media can reveal maneuvering and abuse of fundamental human rights. It reprimand election rigging and offer objective assessments of the process and result of election and offer recommendation for improvement. The media also has a critical role to intervene between the state and citizens through debates and discussions about the major issues of the day and informing people about the stand of their leaders on such issues.

Adequate information helps the citizens to decide sensibly and take the right course of action favorable to them. Media thus helps people to know what is happening around the world and

socialize them with values of pluralism. By publicizing information, the media also make public services more responsive to the people (Jobarteh, 2002). Media has been playing a crucial role in making people aware of their rights. Media also make people to be vigilant on political developments in the world and helping them to stimulate debate by drawing their attention to all social evils including the institutional failures, corruption, inefficiency and illegal activities (Yadar, 2001)

According to the findings of Ifeoma, 2013 Achieving good governance requires the understanding and participation of every member of the society and the media must be credible and must embrace the principles of Good governance themselves as a critical precondition for effectiveness in the discharging of their functions. However, the watchdog must watch themselves. (Ifeoma.2013, 194)

There is an overall feeling that intend government issues within the government and opposition camps do not get enough coverage in a manner that would allow the public to make informed choice in regards to voting; especially regards to corruption reporting was not as frequent, as rigorous or as unbiased as they would hope for, over the past 15 years, the media has succeeded in bringing the issue to public notice and debate. Respondents noted that there was a greater focus on public corruption in media coverage as related to procurement and financial mismanagement, rather than private and corporate business dealings. In a study carried by Ifeoma (2013) on Good Governance requires the understanding and participation of every member of the society.

Another study was carried in U.K of Policy opinion on Governance and the media by BBC (2009) according to their findings there seems to be an increasing recognition of the mass media role in governance in the development community. They further posit that all aspects of Good Governance are facilitated by existence of a strong pluralistic and independent media within society (UNESCO, 2005) The media are considered to be a major source of information disseminating to the public, and for them to function effectively according to Olutokun and Seteelu, (2001). Olaiya, Apeoko, and Ayeni, (2013) they must be guaranteed by free and independent in discharging their duties. The degree to which a media is independent is the capacity to which it can serve and act as a watchdog to the public affairs.

Theoretical Framework

Agenda setting and social responsibility theories were adopted. The agenda setting theory was propounded by Maxwell McCombs and Donald Shaw. In its evolution, the agenda setting perspective over the past 25 years has formulated a general umbrella for a number of research traditions and concepts in media and communication. The agenda setting theory with the prevailing selective exposure hypothesis, reaffirming the power of the press while maintaining individual freedom. In their ground breaking study which was first discussed and measured during presidential campaign McCombs & Shaw believed that the theory created a cause and effect relationship between the media and public agenda. They emphasized that the media influence is the way public think. Thus, the theory comes from scientific viewpoints, which assumed that if people are exposed to the same media, they will place importance on the same

issues. Therefore, this theory will help to understand how the media particularly broadcast media set the agenda to promote good governance.

While Social responsibility theory by Siebert et al 1956, explains the main pre occupation of the press (Mass media) by providing information, discussion and debate in Public affairs, and safe guarding the rights of the individual by serving as a watchdog. In this regard the media must be free from any biased reporting and serve as the watchdog over government activities these would help to promote good governance in any society (Folarin, 1998)

Methodology

The study employed survey research method. Survey is a methodology that is used in the study of a segment or portion of a population for the purpose of making estimation, assertions about the total population from which samples has been selected (Babbie, 2001).

Population

The population of the study consist the entire Kano State

A sample is a subset of the population that is representative of the entire population (Wimmer and Dominick, 2011). The study used Purposive sampling in selecting six Local governments in Kano State. While stratified sampling was used in selecting the respondents for the study. Stratified sampling ensures that a sample is drawn from a homogenous subset of the population, example from a population that has similar characteristics. Homogeneity always helps to reduce sampling error (Wimmer and Dominick 2011, 28) As Babbie (2001), notes: stratified sampling ensures the proper representation of the stratification variables to enhance representation of other variables related to them. Taken as a whole, then, a stratified sample is likely to be more representative on a number of variables than a simple random sample. Therefore, the various six local governments were divided into six, stratify by the use of convenience sampling which allows the researcher to select subjects based on appearance or convenience, or because they seem to meet certain requirements, 20 samples were drawn from each of the strata to answer the questions.

Sample Size

A sample size is simply the number of units of a sample. Cohen, Manion and Morrison (2000) assert that to ensure validity of a research, the researcher must ensure the sample represents the whole population in question. Therefore, for the purpose of this work, one hundred and twenty (120) copies of questionnaires were distributed to the respondents. Twenty copies of questionnaires were distributed to each of the selected Local Governments in Kano State: Bagwai, Gabasawa are representing Kano North, Aginji and Kibiya are representing Kano South, Dala and Nassarawa are representing Kano Central.

Instrument of Data Collection

Questionnaire was used for data collection. The questionnaire was designed in line with the research questions and objectives of the study in such a way that the variables were clearly identified as such getting the appropriate response necessary for meaningful interpretations. The questionnaire was constructed in the open and closed ended question format.

Analysis of the Results

A total of one hundred and twenty questionnaires were distributed to the six local governments selected in Kano State, but only one hundred and sixteen were retrieved and used for the study. Tables, frequencies and simple percentages are the statistical tools adopted for the presentation and analysis of the data obtained.

Table 1: Gender of Respondents

Variables	Frequency	Percentage
Male	76	65.5%
Female	40	34.5%
Total	116	100

Source: Field report 2021

Table one indicates that 76 respondents representing 65.5% were male, while 40 respondents representing 34.5% were female. This is to show that most of the respondents were male with the highest percentage.

Table 2: Distribution of Respondents by Age

Variables	Frequency	Percentage
18 – 24	84	72.4%
25 – 31	28	24.1%
32 – 38	04	3.4%
39 – 45	0	0%
Total	116	100

Source: Field report 2021

From the age distribution table 2 shows that, 84 respondents representing 72.4% were within 18 – 24 and 28 respondents representing 24.1% fall within 25 – 31 while 4 respondents representing 3.4% were within 32 – 38 age brackets.

Table 3: Respondents views on whether they own any form of mass media

Variables	Frequency	Percentage
Yes	104	89.7%
No	12	10.3%
Total	116	100

Source: Field report 2021

Table 3 shows that one hundred and four respondents (104) representing 89.7% have access to mass media. While 12 respondents representing 10.3 does not have access to any form of the mass media.

Table 4: Respondents views on whether they believed mass media can promote good governance

Variables	Frequency	Percentage
Yes	107	92.24%
No	09	7.76%
Total	116	100

Source: Field report 2021

Table 4 shows that one hundred and seven representing 92.24% believed that mass media promote good governance by being transparent to government activities, only nine respondents representing 7.76% said no.

Table 5: If yes, give your reasons

Variables	Frequency	Percentage
Media provides accurate information of high quality	**39**	**33.62%**
Media provide information to the people about government activities this cam make the elected representatives accountable to the people	46	39.65%
All of the above	28	24.14%
None of the above	03	2.59%
Total	116	100

Soucre: Field report 2021

Table five shows that majority of respondents representing 39.65% believed that media provide information about government activities; this can make the elected representatives accountable to their people.

Table 6: Respondents views on whether mass media face challenges in promoting good governance

Variables	Frequency	Percentage
Yes	76	65.5%
No	40	34.5%
Total	116	100

Source: Field report 2021

Table six shows that 76 respondents representing 65.5% believed that mass media face challenges in promoting good governance while 40 respondents representing 34.5% did not agree.

Table 7: If yes, what are the challenges?

Variables	Frequency	Percentage
Ownership and control of the media	96	82.76%
Corruption and paid news	20	17.24%
Total	116	100

Source: Field report 2021

Table 7 shows that ninety six respondents representing 82.76 % believed that media face challenges due to ownership and control of the media only 17.24% believed that corruption and paid news are other challenges that the media face.

Discussion and Findings
Findings revealed that mass media has a disproportionately visible and influential role in fostering an environment where good governance will prosper. As the watchdog, the agenda setter of public discourses and interpreter of public issues and events, mass media play significant and gigantic role in good governance. To contribute to good governance media should be editorially independent, free from control, pressure and external interferences in order to keep their duties effectively. Findings of the study also revealed that mass media are the only institution with the capacity to allow and facilitate regular checks on Governments activities, and even assist in bringing public concern and voices into the activities of their ruling parties by providing a platform for public discussion. Findings also revealed that media informed people about government activities this will facilitate elected representatives accountable to their people.

Conclusion
The study concluded with facts that media play significant role in good governance. Without the information people received from the media, they cannot demand changes or accountability from their government and social institutions. This is in line with the findings of Ifeoma, (2013) achieving good governance requires the understanding and participation of every member of the society and the media, must be credible and must embrace the principles of Good governance themselves as a critical precondition for effectiveness in the discharging of their functions. However, the watchdog must watch themselves. (Ifeoma.2013, 194)

Media creates opinion climate which influence the public's perception of political actors and events, and their desire to voice opposition and demand change. Thus, the media acts as a catalyst for creating positive governance outcomes, and in turn governments are motivated to bring changes in the institutional structures that promote democracy. The study is also in line with the theories adopted that the media set the agenda to promote good governance by providing information, discussion and debate in Public affairs, and safe guarding the rights of the individual by serving as a watchdog against government

Recommendations

The study recommends that:

1. The media should always be efficient and effective in providing policy makers and government with information important to addressing a nation's policy and development needs.

2. Government should allow the media itself to functions independently, to provide news and information of a high quality which can reach large number of people.

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Assessment of Some Specific Central Bank of Nigeria (CBN) Interventionist Programmes in the Nigerian Agricultural Sector

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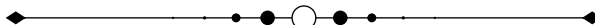
Abstract

This study has examined some specific Central Bank of Nigeria (CBN) interventions in agriculture and its relationship to agricultural output. The Central Bank of Nigeria and the government have invested a substantial amount of money into the schemes, yet thus far, there is no visible result to show for it. This study will let us to know the extent at which specific CBN intervention schemes has influenced agricultural output. Ordinary Least Square (OLS) was used to examine the strength of the relationship between the specific CBN interventions in terms of agricultural output. The findings were that there was no significant relationship between the agriculture credit guarantee scheme and therefore no impact on agricultural output. On the other hand, the regression analysis supported the hypothesis that there was a significant relationship between Interest Drawback and agricultural output as well as a significant relationship between the Anchors Borrowers Program and agricultural output, respectively. On this positive thinking, the study closes with unique recommendations for policy makers to stimulate the investment into the schemes to further increase agricultural output.

Keywords: *Central Bank of Nigeria, Anchor Borrowers Programme, Agricultural Sector, agriculture credit guarantee scheme*

Background of Study

Nigeria, as a member of the Economic Community of West African State (ECOWAS), practices a mixed economic system, that is, an economy that combines both capitalism and socialism. The economy consists of 5 major sectors which are the agricultural sector, the industry, construction, trade, and service sector. An outlook of the Nigerian economy shows that in 2019, real GDP growth was projected at 2.3 percent, up slightly from 1.9% in 2018. Growth was primarily in the areas of transportation, improved oil industry, and information and communications technology (ICT). Sporadic floods and disputes between farmers and herdsmen hurt agriculture. Production appears to be underdeveloped. Final household consumption was the main driver of growth in 2019, strengthening its contribution by 1.1 percent in 2018 to real GDP growth (Bank, 2019).

Farming practices are dominated by small farmers who make up approximately ninety percent of the country farm. These farmers mainly use conventional methods and mainly produce livelihoods. Government interventions were motivated by the need to provide access to inputs and other support for farmers in order to increase productivity and transform them into mechanized agricultural practices, while commercial farm holders were assisted by credit facility provision, input subsidies, capacity building and export incentives (Adamgbe, Belonwu, Ochu, and Okafor, 2020). Between 2000 and 2005, the GDP annual growth percentage was at 6.4% which increased within 2006 and 2010 at 8.0% which then had a drastic reduction at 0.8% and 2.2% within the years 2011-2017 and 2018-2019 respectively.

The Nigeria economy data showed an average population (millions) to be 191 and the GDP per capita (USD) average to be 2292.2 over the years 2015 to 2019. The unemployment rate stands at an average of 7.22 and the economic growth at 1.24 over the years (Focus Economics, 2019).

One of the major aspects of the central bank is finance development. Also, one of the conditions in an economy to sustain economic growth is development financing. The finance provision to different economic sectors would encourage growth in an all-embracing manner which will help develop and boost welfare more rapidly. The development initiatives of the CBN include policy formulation and implementation, product development and formulation for the supply of services in a competitive, efficient and sustainable way for financial institutional operations. The initiatives focus primarily on agricultural, rural, and micro, SMBs (small and medium-sized businesses) (CBN, 2007).

According to Adamgbe, Belonwu, Ochu, and Okafor (2020), agricultural activity is dominated by small farmers who make up 90 percent of the country's farm. These farmers mainly practice traditional methods and produce mainly for livelihood. Government interventions have been influenced by the need to provide access to the inputs and other supports for farmers to increase their productivity and enable them to implement mechanized agricultural practices, input grants, capacity building initiatives, and export initiatives have been supporting commercial farmers.

In the period between the years 2000 to 2005, the percentage of employment in agriculture was at 45 percent which has been declining over the years. During the period 2000 to 2005, the sector contributed 26.1 percent of the total value added to GDP. Its average contribution however declined consistently over time to 23.9 percent in the period 2006-2010 and further down to 20.8 percent during the period 2011-2017. Between the years 2000 to 2016 the share of agricultural raw material exports witnessed a sustained improvement of the percentage of total merchandise exports. Its shares grew from a paltry 0.1 percent during the period 2000-2005 to 2.0 and 4.3 percent during the period 2006-2010 and 2011-2016 respectively. However, the share of import of agricultural raw materials to total merchandise imports reduced from 1.3 percent recorded in 2000-2005 to 1 percent during the period 2006-2010, which remained constant till 2019.

In Nigeria, the agricultural sector is made up of a combination of traditional techniques and modern production. The latter are organized companies such as Obasanjo farms in Ota, Presco at Edo, and others. The former comprises small farms scattered across the country. It is easy to know how much money modern farms use, but the same can't be said of smallholdings because they mainly depend on the weather. Agricultural statistics, however, do not separate the volume of output supported by funding from the volume of output supported by other factors. But in many respects, such a separation would be important. Such calculation will help policymakers to understand the need for increased agricultural funding for increased sector productivity. (Mbutor, Ochu, and Okafor, 2013). Agriculture is the backbone of the Nigerian economy and known as the largest source of employment: having two thirds of the population relying on farming for livelihood.

According to Adamgbe, Belonwu, Ochu, and Okafor, (2020), various governments have embarked on different growth improvement programs to secure better investment and output in the sector. The programs focused on enhancing access to finance and other agricultural inputs, such as fertilizers and seedlings, pricing support mechanisms through the implementation of protectionist tariff and tax policies, etc. Government agencies and international development partners carried out these interventions at all levels. A government agency, the Central Bank of Nigeria (CBN), actively engaged in agricultural sector intervention to increase agriculturalists' access to finance (mostly at single-digit rates).

Statement of Research Problem

We all share a common goal which is to ensure a quick recovery of our economy and returning to a strong growth, and that is why this research topic is of great importance. Intervention is the deliberate involvement in a problematic situation in order to ameliorate or prevent it from worsening. Historically, the bank had been involved in development financing since 1962. The focus of policies was on improving access to credit by preferred sectors (agriculture, manufacturing, MSMEs, and infrastructure) and the establishment and strengthening of development finance institutions. Osuma, Ikpefan, Romanus, Ndigwe, and Nkwodimmah, (2018), says that the key agents for the disbursement of funds to the agricultural sector is the bank, of which it is preferred to lending the funds based on the income of the customers. This has made banks (agricultural banks, microfinance banks, etc.) be discouraged from lending to

peasants and small farmers of which they are of a large proportion in Nigeria. (Okunlola, Osuma, and Omankhanlen, 2019).

The poverty rate in the country increases day by day and one of the solutions made available by the CBN is making available incentives/schemes in which funds have been disbursed there, to encourage people to go into farming. The traditional role of feeding the population, provision of substantial export earnings for the country and meeting of raw materials has not been fulfilled recently by the Agricultural sector. Emerging problems that constrained the realization of the potentials in the Agric sector includes, among others: inadequacies in the supply and delivery of farm products, no or little technology operation, shortage of working capital. It is therefore compelling that there is a need for the correction of the existing structural distortions in Nigeria Agricultural sector thereby putting the economy on the path of sustainable growth. It is therefore against this problem that this study has been based.

Research Question
1. To what extent has the Interest drawback supported farmers who borrow at a market-determined rate in the Agricultural sector?
2. To what degree has the Agricultural Credit Guarantee Scheme Fund (ACGSF) impacted on the performance of the Nigerian Agricultural sector?
3. How has the Anchors Borrowers program impacted the agricultural sector?

Objective of the Study
1. To know whether the Interest drawback has impacted the Agricultural sector
2. Whether the ACGSF have impacted positively on the performance of the Nigerian Agricultural sector
3. To know the impact of the anchored borrower's program on the Agricultural sector.

Research Hypotheses

H_0:   There exist no significant relationship between interest drawback and Agricultural output

H_0:   There exist no significant relationship between the ACGSF performance and the Agricultural output.

H_0:   There exist no significant relationship between Anchors Borrowers Program and Agricultural output

Conceptual Framework
Agricultural Sector of the Nigeria Economy
Nigeria is richly endowed with natural resources with a land area of 923,768 square kilometers, a population of 168 million, and a per capita GDP of US$1,106.77. The population residing in the rural and semi-urban areas is more than 70 percent and most household incomes are derived from agriculture.

Agriculture has remained an important sector and a growth driver in the Nigerian Economy. According to Omankhanlen (2013), the most dominant sector in which the national domestic

production has been greatly contributed to is the agricultural sector. Despite the oil, it has provided a means of livelihood for Nigerians, curbed poverty, improved employment opportunities, and also contributed to the economy at large. Nigeria is one of the largest countries in Africa, and with its vast natural resources, agriculture is seen as the most significant sector of Nigeria's economy. Agriculture in Nigeria has a ratio of about 70 percent of the working population and contributes about 60 percent to the national income (Oluwasanmi, 1966). Agriculture also contributed to the Nigeria GDP share with steady growth from 2014 to 2019 recording an average of 20.93 percent.

The task of farming in Nigeria is not only to deliver the food necessary to feed the fast-growing population of Nigeria, but also to supply the money and material necessary to industrialize the country and bring it into the industrial and technological world. (Oyenuga, 1967). Also, modern production techniques such as more effective instruments, improved seed varieties, and fertilizers have to be implemented for the agricultural system to carry out this function. To do this, the country needs to coordinate its agricultural research projects and capitalize on them, as well as to provide field workers who are qualified to ensure that the farmers embrace these innovations (Oluwasanmi, 1966). The government's Agricultural Transformation Agenda (ATA) set up the Growth Enhancement Scheme to register smallholder farmers as well as providing targeted input subsidies such as access to fertilizers and seeds. Between 2011 and 2014 subsidies were provided to about 14 million farmers (FMARD, 2016).

Similarly, governments sought to attain self-production over a period not exceeding 3 years through the implementation of the Presidential Initiative on vegetable oil and tree crops development. The Structural Reform programs, the Agricultural Transformation Action Plan (ACTA), and other government measures were initiated to strengthen the meaning of the agricultural sector, to name but a few.

These agencies have been active in providing credits to the farmers by the CBN, the bank of the industry, and the agriculture bank. Some of the interventions include
1. Interest drawback (IDP)
2. Agricultural credit guarantee scheme fund (ACGSF)
3. Commercial agricultural credit scheme (CACS)
4. Agricultural credit support scheme (ACSS)
5. Anchors borrowers program
6. Nigeria's Risk-Sharing Incentive System for Agricultural Lending (NIRSAL)
7. Cassava Bread Development Fund.
8. National Programme for Food Security Fund. (NPFS)

Interest Drawback (IDP)
The interest drawback program was established to provide support which is determined by the CBN from time to time to borrowers for the interest rate paid on loans under the Agricultural Credit Guarantee Scheme Fund. It has been established jointly by the Federal Government of Nigeria (FGN) and the central bank of Nigeria (CBN) to provide relief on the interest rate paid by farmers borrowing under the ACGSF. It has an established fund called the IDP Fund

of N2.0 billion which is subscribed to by the federal government and the central bank with a ratio of 60:40. The fund isn't regarded as part of the existing authorized or paid-up share capital of the ACGSF.

Purpose of the Fund
1. To assist farmers borrowing under the ACGSF by reducing their effective borrowing rates without the complication of re-introducing a dual interest rate regime into the economy or contradicting the existing deregulation policy of the government.
2. For the ease of surveillance or monitoring, the Scheme is, for the time being, for farmers borrowing under the ACGSF.
3. To provide interest support to farmers who borrow at a market-determined rate.

Procedure Under the Scheme
1. Farmers shall borrow from the lending banks at market-determined rates After the underlying loan is liquidated, the borrower is entitled to interest drawback at the predetermined IDP rate.
2. Lending banks are responsible for submitting interest drawback applications on behalf of their customers using the form IDP/1.
3. For every eligible customer who has fully repaid their facilities as required, the schedule form IDP/1 must be completed in triplicate by each lending bank which the original and duplicate will be forwarded to the manager, development finance office of the CBN branch in the state, where the loan transaction took place. The triplicate copy will be retained by the lending bank.
4. The particulars of customers from a specified bank branch will be reflected in each schedule. i.e. the farmer's name, ACGSF guarantee certificate number, the loan amount, the retained interest, the interest paid, the interest drawback applied for and the duration will be indicated in the schedule.
5. There shall be a cross-check to the schedule as to the validity of the borrowers' names, loan amount, the interest charged, duration, and interest drawback entailment by the manager, development finance office in the CBN branch center. If the schedule is correct, the lending bank officer must sign a schedule jointly before sending the original copy to the director, CBN headquarters' development finance department.
6. The schedule must be cross-checked by the director, and if correct, the lending bank will be issued a cheque within 30 days advising the bank to credit the account of the customer with the approved interest drawback entitlement.

7. The lending bank credits the beneficiary account for the number of days required for check-clearing in accordance with the relevant CBN guidelines.

8. Nigeria's central bank, which is a managing agent for the ACGSF, is the Fund's management and the CBN headquarters is in charge of the managing IDP Finance Development Department headed by the Director of Departmental Development Finance.

9. A trending analysis shows that the repayment of loan performance of the ACGSF

over the years, the interest drawback program has impacted positively on the operations of the Scheme as it has induced clients to pay in time. (acgsfidp guideline cbn, 2002).

Agricultural Credit Guarantee Scheme Fund
Creation of the Fund and its Purpose
Under the Agricultural Credit Guarantee Scheme Decree 1977 (decree no 20), and as updated on 13th June 1988, the Agricultural credit guarantee scheme fund was established and started effectively in 1978 by the federal military government. The decree originally provided the federal military government (60 percent) and the central bank of Nigeria (40 percent) for a fund of N100 million. The fund had increased its share and its capital to N3.0 billion. To enhance the level of bank credit in the agricultural sector, the fund is aimed at offering guaranteed credit for agricultural loans issued by any bank, as stated below. The loan contained in the decree shall include advance, overdrafts and all credit schemes and shall be used in guidelines and circulars as such.

Agricultural Purposes for Which Loans Can Be Obtained and Scheme Management:
1. Funds are managed by the Agricultural credit guarantee fund board and the managing agency for the scheme management is the CBN. Work on, the scheme in the central banks headquarter is carried out by the banks' development headed by the director. To prevent delayed activity, the state where any transactions (central banking office) under the scheme are carried out is the key feature of the operations of the scheme.
2. For the agricultural ends, creating or manage plants to produce Rubber, olive oil, cocoa, coffee, tea and the like for which credits may be guaranteed by the fund, are the following:
    i. The cultivation or production of cereal crops, pineapples, bananas and plantains, cotton, beans, nuts, and groundnuts.
    ii. Pet breeding, i.e., poultry, piggery, cattle raising, fish farming, fish catching, and so on.
    iii. Processing in general in which a minimum of 50% of farm production is integrated, for example, cassava-to-Garry, oil, palm fruit kernels, groundnut-to-grass oil, and so on.
    iv. Farming and rental machinery.

Forms of Loan Security and Loan Application Procedures
One or more of the following can include the safety that can be offered to a bank for any loan under the scheme:
1. An accrued on land where the borrower has a legal right or interest in agriculture, or an accrual of land assets including land, crops, and cattle.
2. The borrowers' mobile assets are charged.
3. A life insurance policy, promissory note or other negotiable security.
4. Actions and stocks
5. Personal security
6. Any other security that the bank accepts.

The Loan Application Procedures Include

1. All requests for credit by banks in the form specified for that purpose shall be received under the scheme.
2. In three different versions, applications must be completed. One copy shall be printed and sent to the nearest office by a bank in the country of which is located. The correspondence of the applicants to the Bank request should be copied to the central bank office where a copy of the request has been sent.
3. Banks' requests should be processed promptly and no more than 60 days should be spent between submitting an application under this scheme and disposing of such an application. Banks will be appreciated to request information not adequately supplied by applicants. Officers of the funds can appeal to bank that do not seem to have acted in due time on any applications.
4. All applications under this scheme should be dealt with in the same way as the normal course of their banking businesses with due diligence, good faith and competence.

Bank Funds and Safeguarding Loans or Applicants and Certain Loans

1. The bank should provide the petitioner with reasons for denying the loan if a bank refuses any application under that scheme. Measures should also be specified in order to meet the banking requirements. Letter copying of applicants should be sent to the banks to the main bank office where copies of the initial request have been received.
2. Where a loan or part of the loan under that scheme is to be applied, perhaps the borrower should be paid for the purchase of livestock, machinery or agricultural equipment. The bank shall instead pay the supplier who supplies the bank with a copy of the delivery note or any documentation that shows that the borrower receives the livestock, machinery or equipment.

Credit Policy Forms and Conditions

Each loan arrangement for which guarantee shall be given must be in writing and must contain the loan amount, the rate of interest, and the length of the lending, under section 8 of the decree on the agricultural loan guarantee scheme. The length of each loan should if any, apply strictly to the gestation period of the project funded, including the moratorium period. Banks should remind prospective debtors of a scheme that a fine may apply the loan for reasons other than those for which the loan may be imprisoned for five years.

Fund Liability Limits in Regards to Guarantees

1. The commissioner for finance shall from time to time see to the overall liability of the fund for every scheme guarantee.
2. Where a particular person has been granted a loan, the debtor shall, for the loan of a co-operative or corporate entity to a maximum of N10, 000,000 shall be held liable, net of the amounts paid by the bank on the borrower's securities
3. When two or more banks fund a project jointly, the above limitations on liability for financing would apply to the bank's overall loan.
4. In those cases, only one of the banks which all the banks concerned may nominate is treated by the fund as if the entire loan has been granted by itself.

5. Offices have been set up in all central bank branches and currencies to handle the system to ensure agricultural credit, in addition to the headquarters at the CBN. Officers who operate in each branch or monetary centre and are subject to control of the central bank's branch controller or monetary officer manage the bureau.

6. These officers are responsible for such problems in the State in which they live, ensuring that, unless otherwise directed to the bank, concerns concerning that scheme are resolved as fast as feasible.

Circumstances Under Which Guarantee Can be Granted and a Guarantee Application

Banks should apply for guarantees following the scheme on the ACGSF/1 form. Each request must be complete and numbered three times. The form is to be sent two copies, not later than two weeks after receipt of the loan, to the Controller of the Central Banks currency officer of the State in which the guarantee bank is located.

1. If the agricultural loan guarantee scheme fund decree of 1977, any loans made by a bank or jointly for farming purposes with another bank are eligible for a fund guarantee. This will be the credit guaranteed, except in some cases, automatically for the time being.

2. Should any doubt be raised about the conformity or failure of a loan application to the decree, the bank should request the fund to be cleared.

3. The borrower should not be granted any new bank credit without prior clearance of the Fund if the Bank grants a loan to the farmer guaranteed by the fund, and claims are paid by the fund.

Certificate Issuing the Guarantee

Under the scheme, the guarantee condition is that, with guaranteed loans, the fund shall be entitled to inspection of the banks' books and accounts and to request or review all details of the guaranteed loan from the bank when considered necessary by the funds, by obtaining a suitable undertaking for which the debt was given to the bank. The fund will provide the bank with a certificate in the prescribed format (form ACGSF/2). When a guarantee application is sent by the bank, no other document in this regard must be signed by the fund.

Improving/Reducing Guaranteed Credit and Extending the Guarantee

If a bank provides an increase in a loan for which the fund has previously provided a guarantee, the fund must be notified as soon as the increase is approved. Where the initial loan amounts to over 25 percent; the bank has to obtain the funds' prior approval. This should be done in numbered ACGSF/3 form and forwarded in duplicate to the relevant office. The fund will issue its approval on the ACGSF/5 form. If the borrower's overall debt is ultimately less than the funds' guaranteed sum, the Bank must notify the fund of the new amount, which will be considered the guaranteed loan.

The bank will notify the fund if the period of a guaranteed credit facility is extended accordingly on the form ACGSF/4 in duplicate, once it has completely satisfied itself with the justification for such an extension. Such advice should be provided at least one month before the current guarantee expires. Approval will be given on ACGSF/5 in which it must be acted upon.

Variation of the Guarantee and Repayment or Discontinuation of a Loan Arrangement Under Other Terms and Conditions

1. If the bank approves an amendment to any of the other credit terms and conditions under which the guarantee was issued, it shall notify the fund as soon as the credit has been granted for this.
2. If a guaranteed advance is repaid or the credit facility is terminated in any other way, the bank must notify the fund immediately and give information on the guarantee certificate.

Call on the Guarantee

1. The fund shall not be reported with a temporary default on the instalment reimbursement of the guaranteed loan is purely based on the faults; the bank did not intend to cease the to refer to the loan as a facility or to term it.
2. However, if the bank has failed to regularize the account and to call the loan, the fund should receive the 'default notice,' fill in an ACGS F/6 form in duplicate copies and correspondence, as the default has been noted, between the bank and the customer.
3. If a default concerns a repayment of a large sum or the final instalment refund of a credit, as described above, a "default notice" must be provided by the bank alongside a fund.
4. Once the notice of default is issued in a specified way, the bank should make more efforts to retrieve from the borrower or his securities the sum in default, if any, and, to this end, may dispose, if necessary, of any securities obtained concerning the loan.
5. If the balance remains outstanding after the step above or if the collection of any outstanding amount is impossible, the bank should apply for the guarantee claim ACGSF/7 payment fund following guarantee conditions. ACGSF/7 applies.
6. Where the fund has not received a guarantee claim form within six months of the date the notice of default is received, then the bank is assumed to recover its credit and the fund is considered to be discharged under the guarantee of its liability.
7. In double the form specified by the Central Bank's office (form ACGSF/7) a guarantee claim shall be presented by the banks' headquarters. The bank must make sure that the demand is comprehensive in all respects and that the standards set forth in the scheme are properly satisfied in order to allow a quick settlement of the claim. If the claim is in order it will be transferred to the head office by a cross-cheque or bill of lading to the claiming bank. The claiming bank should issue a receipt for the amount this paid straight away.
8. When payment is made under the above, all its liabilities under the guarantee shall be deemed to be discharged from the fund.
9. To settle a claim under the scheme, the amount received from the fund shall not be credited to the borrowers' account which remains responsible for the bank's full debt. After the invocation, the bank should continue to exercise the same care to guarantee when entirely recovering the amount that it could have done, provided the fund had not issued a guarantee.
10. The balance of the loan outstanding for which the fund has made payments shall not be prepared by the bank without the specific written consent of the Fund.
11. If required, the fund shall publish in the newspaper names of defaulters.

Procedures for Sharing Recovery and Return Submission

1. The bank shall share in the rate at which the loss was shared of all recovery made on an account with which they invoked the guarantee between the fund and the bank. After the guarantee has been invoked, a statement should be presented to the fund with recoveries made to date when the money shared in such reinsurance is transferred. Such shares must be transferred to the fund by the end of the month of its receipt. If not, the fund must be sent to it in the next month since it is received by the end of the month.

2. As shown by ACGSF/8, banks will report on their progress at the end of December every year. The Fund shall submit the guarantee progress reports. The report should be forwarded to the Central Bank of the state no later than 28 days from the end of the year.

3. From time to time, the fund may request such other returns. (CBN, 1990).

Impact of the Agricultural Credit Guarantee Scheme Fund on the Development of the Agriculture Sector in Nigeria

Since agricultural activities are capital-intensive, loans to the farm sector are crucial in adopting an enhanced method of farming and transitioning from subsistence to highly mechanized and commercial farming. (Olomola, 2007) The federal government has the interest in enhancing formal loans to the agricultural sector to promote farm productivity, generate income for farmers, alleviate poverty and generate exchange for the economy. It is intended to ensure food security, transformative rural development, and improve citizens' nutritional health profile (Akaninyene, Orok, and Agabo, 2017). According to Okon and Nkeng (2009), The ACGSF is created based on a guideline or an enterprise framework designed to prevent the hesitant credits extended to the farmers by conventional financial institutions.

The Commercial Agricultural Credit Scheme (CACS)

The Commercial Agriculture Credit Scheme is a sub-component of the Federal Government of Nigeria's Commercial Agriculture Development Programme (CADP) which is financed from the proceeds of the N200 Billion seven (7) year bonds that are being raised by the Debt Management Office. The fund is made available to participating banks to finance commercial agricultural enterprises at a maximum interest rate of 9 percent. However, each State Government could borrow up to N1.0 Billion for on-lending to farmers" cooperative societies and other areas of Agricultural Development. This is so, provided such initiatives/interventions are in line with the objectives of CACS.

In 2009, The Central Bank of Nigeria in collaboration with the Federal Ministry of Agriculture and Water Resources established the Commercial Agricultural Credit Scheme (CACS) with an objective of:

1. Fast-tracking the development of the agricultural sector of the Nigerian economy by providing credit facilities to commercial farmers who are at a large scale with a single-digit interest rate.

2. Enhancing national food security, by increasing the supply of food and an effective

reduction in agricultural production and the prices of the products resulting in the promotion of low food inflation.
3. Reducing the cost of credit in agricultural production enables farmers to exploit the untouched potentials of the sector.
4. Increasing the output of a nation
5. Employment generation
6. Raising the earning level of the foreign exchange in Nigeria.
7. Providing for manufacturing and processing input on a sustainability base.

Till December 2016, a sum of N 407.362 billion was released to 487 projects, i.e. both private projects and state government projects. The CACS receivables account and repayment account made a total release of N199.831 billion and N 207.531billion respectively where the percentage of funds applied to agriculture and agricultural-related activities was at 80.2% by 82.7% of the firms.

Anchors Borrowers Programme (ABP)
The central bank of Nigeria (CBN) developed the anchors' borrowers program (ABP) as part of its developmental activities. On November 17, 2015, President Muhammadu Buhari (GCFR) announced the program, which was aimed to develop a relationship between the involved anchoring enterprises and smallholder farmers (SHF) of the required core agricultural commodities. The goal of the ABP program is to provide agricultural commodities. Field inputs in type and cash (for farm labor) for smallholder farmers enhance output of these items, stabilize the supply of agricultural inputs processors, and reduce the country's negative balance of payments on Feeding. On the harvest, the SHF supplies the agro processor (Anchor) with its product that pays the cash equal to the farmer's account.

The Program was developed from consultations with stakeholders including the Federal Ministry of Agriculture and Rural Development, government officials, farm milers, and farmers to increase agricultural and non-oil exports in the face of predictability of crude oil prices and their effect on Nigeria's revenue profile.
The overall aim of the ABP is to create economic links between smallholder farmers and reputable large-scale processors so that agricultural production can be increased and processors can be used significantly better. Additional goals include:
  i.   Enhanced funding for the agricultural sector by banks
  ii. Reduced imports of agricultural goods and retention of external reserves
  iii. Enhanced utilization capacities for farmer enterprises
  iv. Creating new farmers and entrepreneurs and jobs
  v.   Sustain the policies of cash lessens and financial integration
  vi. Rural farmers are helped to grow from livelihoods to trade levels of production.

ABP Targeted Beneficiaries and Agricultural Commodities Identified
This loan is for small businesses around the country that manufacture specific products. Farmers should form groups/cooperatives of 5 to 20 people to make administration easier. Comparative advantage targeted commodities include but are not restricted to the State:

I. Grains Grain
II. Roots of cotton and tubers
III. Tree and sugar cane crops
IV. Legume
V. Breeding etc.

Eligible Financial Institutions Participating in (PFIS)
One of these PFIs shall pay out the loan:
Deposit Money Banks (DMBs)
Microfinance Banks (MFBs)
Development Finance Institutions (DFIs)

A private, large-scale integrated processor that has signed a contract is referred to as an anchor with a Small Holder Farmer (SHFs) for the off-shooting or review by the Project Management Team (PMT) of the harvested product at agreed prices. Once the prescribed conditions have been met, the State governments have the ability to function as anchors.

Suppliers Input
The input supplier shall send a letter of interest to the PMT office for consideration and issue local Orders to purchase.

The Interest Rate and Loan Amount
The ABP interest rate is based on the N220 billion MSMEDF rates of 9%. The PFIs must be available to 2% CBN and lend at a maximum rate of 9% per annum. Funds is financed by the Micro, Small, and Medium Enterprises Development Fund N220 billion (MSMEDF). The loan amount shall be charged for each SHF based on the manufacturing economics agreed with the parties involved.

Tenor and Refund
The ABP loans will have a tenor equal to the gestation period of the designated commodities. Granting of loans for SHFs the harvested products, which are delivered obligatorily to the Anchor, shall be paid in accordance with the provisions of agreement signed at the designated collection centre. The delivered product shall cover the principal and interest of the loan.

ABP Management and Implementation
ABP management models based on the anchoring arrangement shall be two: private sector-led and state windows. To coordinate the implementation of the program, a Project Management Team (PMT) is created under each model.

Window for the Private Sector
The PMT shall be established as follows under the Private Sector-led Window;
  i. Chairman of DFO, CBN
  ii. Anchor Company Representatives
  iii. Participating Bank Representatives

   iv. Farmers' association representatives

   v. Nigerian Agricultural Insurance Corporation (NAIC)

   vi. Program Manager, State Agricultural Development Programme (ADP)

Window of State

The State Window PMT shall comprise the following stakeholder representatives:

   i. Head of DFO, CBN as the Chairperson, and the State Government appoint a person as the co-chaired.

   ii. State Government representative

   iii. ADP stands for Agricultural Development Program.

   iv. Firms that act as anchors

   v. The Nigerian Agricultural Insurance Corporation (NAIC) is a government-owned insurance company in Nigeria.

   vi. participating banks

   vii. Farmers' association representatives

Anchor Borrowers Program (ABP) Process Flow

Activities shall comprise:

   i. State Government/Anchor Letter to the CBN outlining the agricultural commodities to be targeted, the number of farmers to be recruited, the hectares to be covered, the PFIs, and other PMT formation details.

   ii. Verification of PMT farmers and agricultural sizes

   iii. Participation of PFI(s) Head Offices confirmed

   iv. Identification by PMT Town Hall Organization of the reputable agricultural suppliers agreed on production economy per hectare, price offset, agreement signature, and all other relevant issues. All stakeholders including the suppliers of inputs shall take part in the meeting.

   v. PFI, Anchor, and farmers sign the tripartite agreement

   vi. Provision of a list of farmers in the prescribed format with account numbers, gender, farm size, BVN, telephone numbers, cooperatives, and LGA loan applications from the head of the PFI offices

Farmers are required to register with the National Collateral Registry (NCR).

Impact of Anchors Borrowers Programme on the Economy

In the last few years, President Buhari launched the CBN Anchor Borrowers' Program, which became the most successful of all government intervention programs. It is one of the CBN's sustainable economic growth intervention programs. Before the ABP, the allocation of foreign exchanges to imports such as rice, wheat, milk, tomatoes, fish, cotton, and fertilizer, etc. had made a significant contribution to the depletion of foreign reserves of the nation, particularly because of the declining oil price. This has resulted in increased unemployment and increased imports of food.

To ensure the creation of jobs on a massive scale, enhance the local food production, and conserve scarce foreign reserves, the CBN, under the management of Emefiele, mobilized its focus on price, monetary and financial system stability. To fund agricultural projects at the same level as nine percent interest rates, Apex Bank allocated a portion of the N220 billion Micro, Small, and Medium Enterprises Development Fund. The main aims were to establish economic links between more than 600,000 smallholders and reputable large-scale processors to boost agricultural output and improve the capacities utilization of integrated production facilities.

Noticeably, the gap has been significantly reduced within the space of three years between local rice production and domestic consumption. CBN has demonstrated a passionate commitment to support small and medium-sized enterprises in the agri-business value chain, perhaps more than any other institution in Nigeria, through its various interventions and plans on development finance.

At the end of the day, the N43.92 billion released by CBN and 13 financial institutions are already being used to fund the farming program for 200,000 smallholder farmers in 29 states of the Federation. In October 2018, the Anchor Borrowers Scheme, according to President Buhari, had created 2.5 million direct jobs. There are also approximately 1 million more indirect jobs. A total of 862,069 farmers had already benefited from the program, cultivating approximately 835,239 acres of land, producing 16 different commodities, including rice, wheat, maize, cotton, soya, poultry, cassava, and groundnuts, and tomato. In close collaboration with the States, the initiatives were undertaken (CBN, 2019).

The Nigerian Incentive-Based Risk Sharing System for Agricultural Lending (NIRSAL)

The agricultural sector, representing 42% of GDP and providing 60% of employment, is central to the Nigerian economy. The sector accounts for only 1% of exports. Growth has been slowing and currently underperforming in the agriculture sector during the last three decades. Nigeria is capable of producing sufficient food for feeding, reducing food import costs, and becoming an important food exporter. To transform its potential production, Nigeria must face some of its major challenges, e.g. limited use of fertilizer and high return seed, poor research and development funding, and underfunding of farm value chains. Funding is particularly important to the Central Bank of these challenges. The agricultural sector of Nigeria is underfunded. Today, farm loans account for just approximately 2% of total bank lending in Nigeria. This is below the level of 6% of other developing countries, such as Kenya. There are various reasons why banks don't lend to agriculture such as a limited understanding of the farming sector, poor agricultural risk pricing; limited pools of credit officials with lending experience to farmers; rigid lending assessment processes, and limited distribution channels for agricultural credit.

NIRSAL Approach to Boosting Agricultural Lending

NIRSAL is a new approach that combines agricultural value chains with value chain financing. The value chains of agriculture and the value chain of financing depend on one another. Fixing the value chain without addressing the agricultural value chains would be a vain exercise to move agricultural financing forward in Nigeria.

By doing three things at once, NIRSAL breaks with tradition:

i. Sets agricultural value chains so that banks can confidently lend in cohesive and complete value chains; and

ii. Encourage banks to lend through the use of strong incentives and technical support to agricultural value chains.

iii. In partnership with key procurement groups, States, private investors, agricultural groups, and processors, active market access development.

iv. NIRSAL builds on five pillars aimed at "de-risking" agricultural lending and reducing banks' lending costs. The pillars are split between USD 500 million. Facility to share risks (USD 300 million). NIRSAL shares its losses on agricultural loans to break down banks' perception that agriculture is a high-risk industry.

v. Facility for Insurance (USD 30 million). The main objective of the facility is to expand agricultural lending insurance products under the existing coverage to contribute to lower credit risks and increase lending across the value chain. NIRSAL is therefore championing, in partnership with the National Insurance Commission, the entry on the market of new providers of private sector insurance, expanding the existing products covered by the Nigerian Agricultural Insurance Corporation (NAIC), and the control and scaling of new products, such as weather insurance, new variants of insurance for pesticides and diseases, and so forth.

vi. Facility for technical support (USD 60 million). NIRSAL is going to equip banks to lend agriculture sustainably. At the same time, it will equip producers more efficiently for borrowing and using loans and for producing more and better-quality market goods.

vii. Rating mechanism for the holistic bank (USD 10 million). This mechanism assesses banks based on two factors: the effectiveness and social impact of their agricultural loans.

viii. Mechanism for Bank Incentives (USD 100 million). This mechanism will provide banks with further incentives to build long-term lending capabilities for agriculture to complement the first three pillars of NIRSAL.

Other Loan Opportunities and Fund Interventions

The COVID-19 pandemic has harmed both lives and livelihood and has drastically changed the agricultural sector and food system worldwide. This has resulted in uncertainties, restrictions to imports and exports, loss of income, and also unemployment in the agricultural sector. According to ("Detailed List of CBN Loans and Fund Interventions For SME Businesses and Agriculture - Plus Application Guidelines - Nigeria Business Information," 2020), The Central Bank of Nigeria (CBN) has launched several loan opportunities and fund interventions to ensure that businesses across all sectors of the national economy continue to operate after the COVID 19 pandemic the detailed list and access to these CBN loans are stated below;

1. AGSMEIS - Loan for small and medium-sized businesses and agricultural enterprises without collateral.

2. Accelerated Agricultural Development Scheme (AADS Loan).

3. The accelerated agriculture development initiative, which is led by the business sector.

4. MSMEDF Loan - Micro, Small, and Medium Enterprise Development Facility.

AGSMEIS Loan for Small and Medium-Sized Businesses and Agricultural Enterprises Without Collateral

This program is intended as a tool for sustainable economic growth and job creation to support federal government programs and policies to promote agriculture and small and medium-sized enterprises. It allows all Nigerian banks to set aside 5% of profits after tax every year. The modified provisions of BOFIA (1991) apply to the banks' investment under this program. The secretary for the scheme shall be the development finance department of CBN. CBN and the trustee board appointed by the bankers' committee shall jointly monitor the project financed under this scheme while the report would be submitted to the CBN and the bankers' committee.

The Scheme's Target
1. Ensure that small and medium-sized enterprises (SMEs) have access to financing, as they are a driving force for economic development in Nigeria.
2. Create jobs in Nigeria that are much needed.
3. Establish the agricultural value chain and guarantee sustainable farming practices.
4. Boost agribusiness management capability as pipelines for rising companies that can be turned into large corporate companies.

Scheme-Based Operations
    i. Investments in agriculture, including cultivation, storage, processing, and logistics.

    ii. Real sector SMEs also backward integration in refineries including local information and communication technologies projects into the manufacturing/agriculture/mining/modular sector.

    iii. Other practices which may be decided from time to time by the bankers' committee

Eligibility
To be eligible for the scheme's fund,
    I. A potential investor must meet the requirements of CAMA (1990), which include submitting annual reports and audited financial statements.
    ii. Comply with and also give back to appropriate authorities, all relevant tax laws and regulations.
    iii. Apply via a participating bank.

Stakeholders
The stakeholders of the scheme include:
1. CBN
2. The bankers' committee
3. Board of trustees
4. Project review committee
5. Individual banks
6. Beneficiaries. ("AGSMEIS," 2017).

Accelerated Agricultural Development Scheme (AADS LOAN)

The following are the guidelines for the non-interest accelerated agricultural development scheme (AADS):

To minimize unemployment among the country's youth, the program aims at involving the minimum of 370,000 youth in agricultural production across the country over the next three years. AADS's wide aim is to boost farm production towards food security, job development, and economic diversification. Nigerian youth between 18 and 35 years of age are the Focus Group.

The basic objectives are to:

1. To promote national food safety through continuous interactions of the agricultural value chain stakeholders within each State.
2. TState governments, the CBN, and other key stakeholders collaborate to increase agricultural employment, with a particular emphasis on crops where the Member States have a comparative advantage. and
3. The establishment of short- and medium-term financing windows for scheme applications.

Focal activities: Two agricultural commodities with a competitive advantage for the State.

Operating Framework

Clustering and mobilization

Prospective young farmers from all Senate regions will be organized by the state administration. They have contiguous agricultural land in all senatorial districts, at least 100 hectares of land per cluster. Forward enterprises (those that comply with the eligibility criteria) are grouped by-product to be manufactured into clusters. Governments of the state are to assign 2-5 hectares per beneficiary of the property. To boost agricultural production in the country, the government of the state will provide road access, and other infrastructure. States can charge land rent for payment of land clearances and other infrastructure costs (max. N10,000 per). Rent paid shall be incorporated into the farmer's Economics of Production (EoP).

Financing

As agents of the CBN, the PFIs shall disburse funding, which shall be of a kind, to beneficiaries.

The PFIs will buy the inputs that are on offer to the receivers using an all-inclusive return rate of 9% p.a. for CBN-approving non-interest financing arrangement with Murabaha, Istisna. The PFI is responsible for the financing of labor with a 9 percent all-inclusive rate of return by using the Ijarah service or whatever other CBN contracts approved for NIFIs.

Tenor funding for grain and grill production (rice, corn, soy, etc.) is 6 months; cassava is 6 months; egg production and ruminants is 24 months; plantation is 5 years, etc.

The mean financing for arable crops is N250, 000; the average financing size for animals is N500, 000; the plantation crops are N1.5 million naira, such as cacao, cashew, and oil palms.

The right to be qualified:

I. Nigerian youth aged 18 to 35 should be the beneficiary.

   ii.   Sign a company that complies with the Scheme arrangement terms and conditions

Stakeholders of the Scheme
1. The central bank of Nigeria
2. The federal government of Nigeria
3. The state government
4. Project monitoring team
5. Participating in the financial institution. (PFI)
6. Input Suppliers/Service Providers
7. Anchors/Processors
8. Beneficiaries
9. Nigeria Agricultural Insurance Corporation (NAIC). (CBN, 2020).

An Accelerated Agriculture Development Scheme Driven by the Private Sector
In compliance with its development mandate, the Central Bank of Nigeria (CBN) established and executed the development finance programs to increase the access to financing for essential industries and sectors of the economy, to achieve autonomy and diversification of food. The population of the nation has continued to increase by almost 3 percent each year while implementing this mandate. Recent studies have shown that the demographic pyramid in the country revolves within the youth sector, with an estimation of 75% of population under 35 years of age. A major segment would have made a living, given its ability to employ 70 percent of the nation's population, if sufficient opportunities are taken up in agriculture. The problem of food safety, as opposed to population growth, is growing, while value-added to agriculture has remained stagnant over years, despite more land for cultivation.

The CBN launched the Accelerated Agriculture Development Scheme (A AADS) in partnership with the governments to deal with the challenges of food security and youth unemployment across the region

The Scheme's Objectives
P-AADS's goal is to improve private farming of staple foods and industrial raw materials while also promoting food security, job creation, and economic diversification.

Goals
1. Land clearing for main agricultural commodity production can be done quickly.
2. Encourage food security by providing all states with vast tracts of neighboring land for agricultural cultivation.
3. Work with backward integration agro-processors through the funding of extended land clearing at proximate locations for the cultivation of commodities to supply industrial raw materials.
4. Supported by appropriate financing other capable stakeholders who were interested in unlocking agricultural land. and
5. The creation of jobs for individual farmers to grow on cleared land.

Participants Eligibility
1. Agro-processors engaged with backward integration of agricultural commodities.
2. Prime anchors and commodity associations engaging in ABP with documentation of contiguous property easily available for agricultural commodity clearance and cultivation.
3. other companies and individuals who have proof of ownership of contiguous property that is ready to be cleared and cultivated for agricultural goods.

Focal Products
Eligible for Scheme consideration, are the agricultural commodities:
1. Rice
2. Poultry
3. Cassava
4. Sorghum
5. Wheat
6. Poultry
7. Tomato
8. Fish
9. Sorghum
10. Oil Palm
11. Maize etc.

Criteria for Eligibility and Financing
The future participants of P-AADS must:
1. Be a current or new agricultural production company with proven capacity and a banking proposal.
2. Have a solid credit history and the ability to provide the required collateral for participation.
3. Demonstrate the ability to cultivate a focus point directly or the involvement of farmers, especially young people as farmers, to cultivate on the ground following clearing.
   Financing: (P-AADS) is financed through the program of anchor borrowers (ABP).

Theoretical Framework
Ricardian Growth Model
Ricardo makes two-sector analysis of the economy by drawing a distinction between an agricultural sector and industrial sector. While industry is subject to of diminishing returns law, agriculture is subject to of diminishing returns law. As more and more doses of labor and capital are employed, marginal product of labor and capital would diminish. Ricardo (1815) noted also that agriculture can be achieving a great improvement with the increased application of capital to fixed factors of production. Capital acquisition is greatly influenced by the development within the financial system of a nation.

Access to financial services is important to the operation of the agricultural sector, especially with the diversification of agricultural exports, where efforts being made to increase the exports of agricultural produce – these farmers require credit for their activities as most of these activities are capital intensive. In addition, due to the cyclical nature of the production, an optimal combination of productive resources is important to achieve an increase in productivity.

Empirical Framework

In their study, Iqbal et al. (2003) found three primary contributing elements to agricultural growth: the increased utilization of farm input, technological progress and technical efficiency. Technological change was driven by R&D efforts, while technological efficiency indicated the rate at which new technology has been adopted and utilized more rationally and has been affected by information streams, better infrastructures and the availability of the funds and the management capabilities of farmers. More money is also needed and better mixes of inputs. These funds may come from savings or through loans by farmers. Agricultural financing, together with modern technology, seemed a vital part of improving output in less developed countries when savings are insufficient.

Including land fragmentation, the lack of agriculture management skills that hampered farmers' ability to adopt a better agricultural practice as well as the absence of contemporary equipment and inputs have been identified in Jan et Al. (2012). This was because there was insufficient financing for the farmers, especially the smallholder ones. Thus, the availability of finances for farmers to increase agricultural output was dependent in great part, among other things.

Increased loan demand and increased productivity in small farmers, employing current technologies, Saboor et al. (2009) also highlighted. Access to credit has increased the deployment of return-enhancing technologies. Adam and Vogel (1990) further supported the premise that loan programs in most of the third world countries were employed to enhance agricultural production.

Richard (1990), Khandker and Faruqee (2003), and Khan et al (2008), present empirical evidence of institutional agricultural lending to increase agricultural production. They stated that, without question, agriculture would be the principal way of improving the socio-economic situations of rural people. Waqar et coll. (2008), employing a time series analysis and utilizing an error correction model for Pakistan, discovered that agricultural credit had a positive impact on the GDP and had a stronger impact on the agricultural components. Agricultural finance had a substantial short- and long-term influence on poverty reduction.

Studies from Nigeria have likewise established the beneficial association between financial and agricultural output. Nosiru (2010), for example, showed that micro-credit allowed farmers to receive the input they need to boost agricultural productivity. The loan received by farmers in the field of studies did not contribute positively to output. This occurred because the credits were not applied or reversed.

Further studies tried to relate agricultural productivity improvement and poverty reduction. Maxwell, (2001), observed that poverty remained predominantly rural and farming was usually essential to rural lifestyles. Approximately 70% of the employees in sub-Saharan Africa are employed, whereas 67,0% work in South Asia. There should therefore be a major influence on poverty in every increase in rural income, albeit they employ a huge number of people merely. Agricultural and rural finance was seen as one of the key aspects for the sustainable development of the farm industry among all interventions in agriculture reform strategy aimed at attaining success (Mahmud, 2008 and GOB, 2009). Abedullah Elal. (2009) and Saboor et al. (2009) claimed that farmers can buy the necessary inputs and machinery to conduct farm operations and to increase productivity in a timely and convenient manner.

In their study, Johnson &Cownie (1969) highlighted that emerging countries have enhanced their agricultural output through the introduction of contemporary agricultural technologies such as chemical fertilizers, recommended seeds, tractors and sophisticated irrigation infrastructure. However, the use of these contemporary agriculture practices requires additional resources and funding.

Siddiqi et al., (2004) reported a surge in demand for input to boost crop output through the credit flows to farmers. The elasticity of lending, tractor numbers, irrigation, chemicals fertilizer use and pesticides in agricultural revenue demonstrated a beneficial affect on agricultural productivity of credit (credit for manufacturing) and tube wells.

Audu et al. (2007) underlined the need for farm finance and said that the modernization of agriculture requires capital in the form of financing, because new technologies need to be purchased before, they can be deployed in farms. They highlighted the need for farmers to fund consumption and pay for work throughout their companies' gestational phase. They believed that the small size of operations of most farmers, restricts the extent of savings generated by overproduction and hence stagnates revenue, is the reason for inadequate agricultural capital. Any financial intermediation structure that leaves a pool of money for farmers' investments would, therefore, catalyze agricultural production and development.

In addition, Okurut et al. (2005) emphasized the relevance of loans by affirming that agricultural credit is a significant tool for agricultural growth in the context of developing countries. In a significant evaluation of Mali's limits on agricultural development, Kadidia (2001) referred to a lack of financial resources as one the primary constraints of the expansion of its agriculture sector through its Malian National Committee of the Partnership to Cut Hunger in Africa. According to the Committee, one of Mali's key hunger-reduction strategies was to strengthen investment in rural areas by funding hydro-farm developments, developing non-bank financing institutions (financing mechanisms, alternative collateral development, financing guarantees, and insurances mechanisms), facilitating access to credibility.

Model Specification
The study described the model in this study in order to estimate the effects of CBN initiatives on the Agriculture sector (output). The study adopted and modified a model from the study of

Osuma, Ikpefan, Romanus, Ndigwe, and Nkwodimmah (2018). The implicit form of the model is:

AGOPUT = f (IDF, ACGSF, ABP)

Where;

AGOPUT: Agricultural sector (agricultural output)

IDF: Interest Drawback fund

ACGSF = Agricultural Credit Guarantee Scheme Funds

ABP: Anchors Borrowers Program

F: Functional relationship

The explicit form is:

$$AGOPUT = \alpha_0 + \alpha_1 IDF + \alpha_2 ACGSF + \alpha_3 ABP + U$$

Apriori Expectation

1. INTEREST DRAWBACK; There will be a negative relationship between interest drawback and the agricultural sector (output). It is shown mathematically as; $\delta Y / \delta IDP > 0$

2. AGRICULTURAL CREDIT GUARANTEE SCHEME; There will be a positive relationship between agricultural credit guarantee scheme and the agricultural sector (output). It is shown mathematically as; $\delta Y / \delta ACGSF < 0$

3. ANCHORS BORROWERS PROGRAM; There will be a positive relationship between the anchors borrowers program and the agricultural sector (output). It is shown mathematically as; $\delta Y / \delta ABP > 0$

The dataset was from 1991 till 2020. The source of data for this study is secondary gotten from the published materials on the Central Bank of Nigeria Statistical Bulletins and www.indexmundi.com.

Data Analysis and Interpretation

In the previous section of this study, a model which concentrated on the subject matter was specified. The analysis of data, estimation and interpretation of the results obtained in this study would be discussed in this chapter. The data used are time series data spanning the period 1991-2020 and a simple linear model showing the relationship between the dependent and the explanatory variables. The regression was performed using the OLS method in establishing a linear relationship between the variables and determine the variations in the regressions as a result of changes in the regression variables.

Descriptive Statistics

Descriptive statistics is used to explain the important features of the data's in a study. It includes the mean, median and standard deviation of the distribution.

Table 1: Descriptive Statistics of LAGOPUT, LIDP, LACGSF AND ABP from 1991-2020

	LAGOPUT	LIDP	LACGSF	ABP
Mean	9.523158	18.73592	15.66987	3.26E+10
Median	9.570090	19.08763	15.87481	0.000000
Maximum	9.817282	19.84673	16.33773	9.24E+10
Minimum	9.092522	15.33108	14.54968	0.000000
Std. Dev.	0.230183	1.151899	0.489125	4.55E+10
Observations	17	17	17	17

Source: e-view10.

It was reported that the mean value of LAGOPUT is 9.523158, with a median value of 9.570090. It has a standard deviation statistic value of 0.230183. Its ranges statistic value is 9.817282 with maximum and minimum statistic values 9.817282 and 9.092522, respectively. Also, the mean value of LIDP is 18.73592, with a median value of 19.08763. It has a standard deviation statistic value of 1.151899. It has a range value of 19.84673 with maximum and minimum statistic values of 19.84673 and 15.33108, respectively. The mean value of LACGSF is 15.66987 with a median value of 15.87481. It has a standard deviation statistic value of 0.489125. It has a range value of 16.33773 with maximum and minimum statistic values 16.33773 and 14.54968, respectively. Finally, the mean value of ABP is 3.26E+10, with a median value of 0.000000. It has a standard deviation statistic value of 4.55E+10. It has a range value of 9.24E+10 with maximum and minimum statistic values 9.24E+10 and 0.0000000, respectively.

Unit Root Test

This research will be making use of the (ADF). If the absolute value of the ADF t-stat is greater than the absolute critical value of 10 percent and if the ADF t-stat is less than the absolute critical value, a variable is considered stationary. Therefore, unit root test, tests for the stationarity in a times series. The ADF unit root test was used in this study to test the variables employed in the study for stationarity. The results are presented in Table 1.

Table 2: Augmented Dickey Fuller Unit Root Test Results of Variables

Variable	ADF Test Statistics	10% critical value	Order of integration	Remarks
LACGSF	-4.71	-2.63	I(0)	Stationary
LAGOPUT	-4.89	-2.63	I(0)	Stationary
LIDP	-4.45	-2.68	I(0)	Stationary
ABP	-5.29	-2.63	I(0)	Stationary

Source: E-views 10. AUTHOR'S computation (2021)

Variables are integrated in different orders with the highest order of integration being order (I) and the lowest being order (0). From the result above, it is observed that LACGSF, LAGOPUT, LIDP, and ABP are integrated of the order I (0) which means that it is stationary

at levels. The rule of thumbs for the unit root test is one that if the absolute value statistics is greater than the critical value 1%, 5%, and 10% we reject the null hypothesis that the variables are stationary and if they are lower, we accept the null hypothesis.

Analysis of Agricultural Output

$AGOPUT = \alpha_0 + \alpha_1 LIDP + \alpha_2 LACGSF + \alpha_3 ABP$

The empirical result of the OLS estimates of parameters of the model in chapter 3 is presented in the equation below. The t-values are reported in parenthesis, directly under the co-efficient of determination (R^2), the adjusted co-efficient of determination (R^{-2}), the F-statistics and Durbin-Watson (DW) statistics are also presented.

$LAGOPUT = 7.874330 - 0.134229LIDP - 0.061193LACGSF + 2.84E-12ABP$

(11.28533)　　(4.955949)　　(-0.976541)　　(5.374886)

R^2　　= 0.901648

R^{-2}　=0.878951

F stat　=39.72596

D.W　=1.754075

Table 3: Regression Results Using Ordinary Least Squares Approach

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LIDP	0.134229	0.027084	4.955949	0.0003
LACGSF	-0.061193	0.062663	-0.976541	0.3466
ABP	2.84E-12	5.29E-13	5.374886	0.0001
C	7.874330	0.697749	11.28533	0.0000
R-squared	0.901648	Mean dependent var	9.523158	
Adjusted R-squared	0.878951	S.D. dependent var	0.230183	
S.E. of regression	0.080085	Akaike info criterion	-2.009121	
Sum squared resid	0.083378	Schwarz criterion	-1.813071	
Log likelihood	21.07753	Hannan-Quinn criter.	-1.989634	
F-statistic	39.72596	Durbin-Watson stat	1.754075	
Prob(F-statistic)	0.000001			

From the above table, the R-squared of 0.901648 indicates that 90.16% of changes in the agricultural output are explained by changes in the independent variables. The adjusted R-squared, after adjusting for degree of freedom, the adjusted R-squared is 0.878951 i.e., 87.89% making it a good fit for the estimated model. The F-statistic of 39.72596 is statistically significant at the 10% level suggesting the validity of the model estimated. It shows that all the independent variables together significantly and jointly impact the dependent variable. Prob(F-statistic) 0.000001 is significant at 5% level of significant. Finally, the Durbin-Watson statistic which tests for auto correlation i.e. all the independent variables is related is 1.754075 and which indicates the absence of auto correlation in the model. The test must be approximately 2 to show that there is no auto correlation. Therefore, on the basis of the highlighted diagnostics of the estimated model, the model estimated is a good model. Hence, the result of the model is interpreted.

Interpretation of Results

The probability value of the result at 5% level of significant shows either the variables are significant or non-significant. The LACGSF has the probability value of 0.3466 making it 34.66% non-significant in impacting on the dependent variable. The ABP has the probability value of 0.0001 with 0.01% which makes it highly significant in impacting on the dependent variable has well as the LIDP has the probability value of 0.0003 making it 0.03% highly significant in impacting on the dependent variable.

The coefficient of Agricultural credit guarantee scheme fund (LACGSF) is -0.061193, that is -6.1193% highly insignificant making it statistically negative and non-significant. Coefficient of the Anchors Borrowers Program (ABP) is 2.84E-12, positive and statistically significant at 5%. The coefficient of the Interest Drawback program (LIDP) is 0.134229, resulting to a positive and statistically significant.

Post Estimation Technique
Breusch-Godfrey Serial Correlation LM Test
The test for autocorrelation of errors in a regression model is the Breusch-Godfrey test. It uses the residuals in a regression analysis from the model, and from them there is a test statistical. Null hypothesis is that any order up to p does not have a serial correlation. While only first-order auto regression is detected in the Durbin-Watson test, the Breusch-Godfrey (BG) test can detect autocorrelation until a pre-defined p-order is obtained. It also supports a wider class of regressors. A low p-value means that the null is rejected.

Table 4

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.280582	Prob. F(2,11)	0.7606
Obs*R-squared	0.825158	Prob. Chi-Square(2)	0.6619

The Prob. F and the Prob. Chi-Square shows that there is autocorrelation if it is less than the significant level of 5 percent but no auto correlation if the Prob. F and the Prob. Chi-Square values are higher than 5 percent.

In the table above, the value of the Prob. F is 0.7606 which is above the significant level of 5%, which shows that there is no autocorrelation; this also explains the Prob. Chi-Square which has the value of 0.6619. The Prob. F and the Prob. Chi-Square shows that there is no auto correlation and therefore supports the Durbin Watson test.

Breusch-Pagan-Godfrey
The Breush-Pagan test was developed by Trevor Breusch and Adrian Pagan in the year 1979 in order to test for heteroskedasiticity in a linear regression model, and it was suggested independently with extensions from R. Dennis Cook and Sanford Weisberg in 1983. The null hypothesis states that the error variances are all equal. Alternate hypothesis states that the error variance are not equal.

The decision rule for any hypothesis is:

a.	If p-value is less than the level of significance, the null hypothesis should be rejected.

b.	If p-value is greater than the level of significance, the null hypothesis should be accepted.

From the table below, it is seen that the p-values are greater than the significant level of 5%, therefore there is an absent of heteroskedasticity .

Table 5

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.277713	Prob. F(3,13)	0.8405
Obs*R-squared	1.023872	Prob. Chi-Square(3)	0.7955
Scaled explained SS	0.363934	Prob. Chi-Square(3)	0.9476

Summary of Findings

The study investigated three CBN interventions programmes (the interest drawback, the Agricultural credit guarantee scheme fund, and the Anchors Borrowers Program) and their impacts in the Agricultural sector covering the period of 30 years, from 1991 till 2020. The study findings indicated that:

a.	There was a significant relationship between the interest drawback and the agricultural Output

b.	There was a negative relationship between the ACGSF and the agricultural output

c.	There was a positive relationship between the Anchors Borrowers Program and the agricultural output.

Conclusion

Finance and credit facilities provided by the CBN are important to the growth of the agricultural sector, and from the study done, the interest drawback and the Anchors Borrowers Program have seen to be positively related to agricultural output. Therefore, the encouragement of the CBN to take responsibility in finance alongside the provisions of loans is needed. Through an improvement in the banks contributions, more farmers would be able to gain access to loans for more productive investments, thereby increasing the agricultural output of Nigeria.

Recommendations

The following are the recommendations made based on the findings of this study:

For the Banks in Nigeria

a.	It is advised that the bank should make use of agric credit vehicle in promoting growth in the agric sector.

b.	The banks should ensure that loans are given for their specific purpose and not diverted by individuals.

c.	The banks should also ensure that they practice good social responsibilities to enable farmers approachable to them.

To Policy Makers (CBN)
a.   It should be scrapped or for a better implementation of the agric Policies, a mass campaign strategy should be adopted and enforced which will get people aware of ACGSF.
b.   Continue with the Anchors Borrowers Program and the Interest Drawback.
c.   Kick corruption thereby ensuring that the fund reaches the hands of the farmers and they are being used for its purpose.

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Effect of Workplace Socialization on Employees Job Satisfaction (Study of Michael Okpara University of Agriculture Umudike Abia State)

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Abstract

This study focused on the effect of workplace socialization on employees job satisfaction of Michael Okpara University of Agriculture Umudike in Abia State. The study sought to establish the relationship between workplace socialization and employee job satisfaction in Michael Okpara University of Agriculture Umudike Abia State, determine the influence of co-worker support on employees' turnover intention in Michael Okpara University of Agriculture Umudike Abia State, ascertain the impact of orientation program on employees' engagement in Michael Okpara University of Agriculture Umudike Abia State and examine the factors affecting workplace socialization program in Michael Okpara University of Agriculture Umudike Abia State. A survey research design was adopted for this study. Primary and secondary data were used for the study. Therefore, the population of this study is two thousand eight hundred and eighteen **(**2818) staff obtained from the academic planning of the university. The sample size of the study was 350 which was derived from Taro Yamane formula. However, 350 questionnaire was administered to ASM, SPATS and JSM staff of MOUAU, however, 13 questionnaire were lost while 337 questionnaire were retrieved from the respondents with 96.3% retrieved which formed basis of this study. The study used OLS regression analysis to test the hypotheses of the study. The study found out that there is a positive relationship between workplace socialization and employees' motivation in Michael Okpara University of Agriculture Umudike Abia State with p-value = 0.002 <0.05% significance level. The study concluded that Interpersonal relationship, unmet job expectation, Organizational culture and inadequate resources do not affect workplace socialization program in Michael Okpara University of Agriculture Umudike Abia State with p-value = 0.001 < 0.05% significance level. The study recommended that Socialization program must be designed to fulfill the expectation of the employees. On this basis organization should create a friendly environment in their organization to boost the employees' performance to achieve more output with less input.

Keywords: *Workplace Socialization, Job Satisfaction, Employees Turnover and Intention*

Introduction

Organization is a social institution that has its own ways of doing things. It can include their goals, methods, values, rules, norms, culture and beliefs and any individual joining any organization must learn to understand and make sense of their new surroundings (Etebarian and Allen, 2006). The culture of every organization is a factor that affects the way its employees behave once they entered the organization and the process of entering an organization is seen as a complex element, as it might be a crucial integration factor to the employee, as well as the organization itself. Therefore, the method by which this sense-making occurs is known as workplace or organizational socialization (Allen, 2006).

Workplace socialization is the process by which a newcomer acquires the attitudes, behaviors, knowledge and skills he or she needs to participate as an organization member. It is concerned with the learning content and process by which an individual adjust to a particular role in the organization (Becker, 2002). In another words, it is concerned with the learning content and process by which an individual adjusts to a particular role in the organization (Georgia ,1994). The author continued that workplace socialization have moved from a simple and general description of "learning the ropes" to a more specific and detailed definition of "process by which the individual learns to appreciate the values, abilities, expected behaviors, and social knowledge essential for assuming any role and for participating as an organizational member, Thus, it is often seen as the primary way by which people identify to new jobs and organizational roles (Massoud 2008).

Moreover, it is a known fact that starting a new job in a new working environment presents series of challenges to an individual irrespective of previous experiences. In adjusting to a new career, many of the expectations that workers have before accepting their job are likely to change as they learn more about the requirement and norms of their chosen field. This exposes the new employees to multiple adjustments behaviors which may be very daunting stressful and challenging. Fresh employees mainly encounter with the unknown leading to some resistance, especially if the organization leaves them to cope individually with the new work environment based on the notion of swim or sink (Malak, 2012). Hence, the success of organizational socialization will depend on the openness of communication of superior's an subordinate, facilitating the interaction by superiors and colleagues, understanding the role (function), organizational goals and objectives together with the tactics of organizational socialization. But there is a quest to know whether the process of organizational socialization can significantly change some individual characteristics and attitudes of the new employee this takes into account the objectives, in particular the different tactics of organizational socialization if it will possibly influence already formed attitudes, habits, and adopted values to achieve new modes of behaviour that are in the interest of both organization and their employees (Taominar, 2009).

In addition, Job satisfaction is a concept that represents a combination of positive or negative feelings that workers have towards their work. Meanwhile, Job satisfaction is a worker's sense of achievement and success on the job. It is generally perceived to be directly linked to productivity as well as to personal well-being. (Kaliski,2007). The author further stated that

Job satisfaction is a worker's sense of achievement and success on the job. It is generally perceived to be directly linked to productivity as well as to personal well-being and happiness in the workplace surrounding. Job satisfaction implies doing a job one enjoys, doing it well and being rewarded for one's efforts. It further implies enthusiasm and happiness with one's work and it is the key ingredient that leads to recognition, income, promotion, and the achievement of other goals that lead to a feeling of fulfillment (Kaliski,2007). Borrowing from Vroom's perspective, job satisfaction focuses on the role of the employee in the workplace. Thus, he defines job satisfaction as affective orientations on the part of individuals toward work roles which they are presently occupying (Harrison 2007). This emphasis the satisfaction new employees derived in the organization that help them settle in the organization and when they settle well there is increase in their output and performance. Owing to this, workplace socialization plays a pivotal role in the level of satisfaction and employee derive in their work (Becker,2002).

However, the increased attention on nurturing new talent within organizations has raised employers' expectations in the various organization and in today's business world, talent is a major competitive resource and for many individuals, their careers and work are major factors in their quality of life (Perry-Smith, J.E 2006). Thus, helping the new staff to set in become imperative as it will improve employees' job satisfaction and enhance human and material resources in the organization, Hence, the present study has taken an attempt to address this issue by fulfilling literature gap by investigating the effect of workplace socialization on employee's job satisfaction with special reference to Michael Okpara University of Agriculture Umudike in Abia State.

Statement of the Problem

The importance of workplace socialization cannot be over emphasized and a successful organizational socialization process makes the employees fulfilled because a lot is achieved and the individuals are motivated. The study was carried out as a result of some problems observed that affect the employees' job satisfaction. First is the fact that some workplace environment where employees carry out their official duties every day is not conducive and may lead to employees' dissatisfaction which manifest to low performance. When a workplace environment is not conducive and unfriendly, it gives unpleasant experience at the same time demoralized the employees' behavior. This type of environment reinforces low self-actualizing behavior which can also lead to the development of negative traits among the employees.

However, it is inevitable at almost any workplace to escape the problem associated with co-workers. Some of these problematic co-workers include the negative co-worker, the overly competitive co-worker, the gossip, the bully and the person who pushes off work. The negative co-worker is the one that has something negative to say, no matter how good something is done in the organization the negative co-worker will plays devil's advocate and criticize without offering up solution. Also, the overly competitive co-worker is overly competitive and try to sabotage other people and throw them under the bus. They will climb over others if it helps them get to the top and they may even try to take credit for your work. What about the gossip?

they want to know everything that is happening and may divulge information you share with them in confidence to others. They always want to be in the know and like to have a juicy story to share. They may ask you questions under the auspices of being considerate or thoughtful, but deep down they may want to use your answers to undermine you. In organization, some workers are bully they are downright nasty, pick on people, blame others or tattle when it is not necessary to do so. They may be unable to handle confrontational conversations without acting mean and saying something inappropriate. Last but not the least is the work shirker who pushes off work or leave before something is finished or try to get out of the assignment altogether. All this attribute of workers are visible in the case study with negative vibes it brings along like job dissatisfaction, high job stress, de-motivation and so on. This should be taking into consideration to comprehensive understand workplace relationships that explore teamwork at work presents towards high employees' performance.

Irrespective of the size of the organization, the practice of introducing a new employee to the organization is vital and should not be taken on a cold feast. It is observe that poor arrangements are made to familiarize the new employees with the organization this has resulted to the changing nature of employment in the last few decades whereby employees enter and exiting jobs more frequently or unplanned. As such, lifetime jobs are not a norm anymore. The question remains, how will they organization keep its integrity with ever-changing employees. One of the most effective ways of keeping that up is to have a proper induction program for newcomers. It is the responsibility of the organization to continuously engage in re-creation, preserving its memory and wellbeing.

Finally, other challenge for newcomers and organizations is the need to socialize newcomers as quickly and effectively as possible. This is very important when viewed against the background of changes in a competitive business environment. A combination of factors such as business process re-engineering, mergers, acquisitions outsourcing, downsizing and increasing usage of contingent workers is affecting the world of work and the nature of the employment relationship between employer and employee Donald R.. Brown (2011). In the face of all these challenges how will Michael Okpara University of Agriculture Umudike in Abia State improve their employees' job satisfaction? Hence this prompted the study on the effect of workplace socialization on employees' job satisfaction imperative.

Objectives of the Study
The broad objectives of this study is to explore the effect of workplace socialization on employees job satisfaction of Michael Okpara University of Agriculture Umudikein Abia State while the specific objectives were to:
  i.   establish the relationship between workplace socialization and employee job satisfaction in Michael Okpara University of Agriculture Umudike, Abia State.
  ii. determine the influence of co-worker support on employees' turnover intention in Michael Okpara University of Agriculture Umudike, Abia State.

Research Questions

For this study to accomplish that desired objectives, these research questions were formulated.

  i. What is the relationship between workplace socialization and employee job satisfaction in Michael Okpara University of Agriculture Umudike, Abia State?

  ii. To what extent does co-worker support influence employees' turnover intention in Michael Okpara University of Agriculture Umudike, Abia State?

Research Hypotheses

The following hypotheses posited in the null form will be tested to aid the study;

H0$_1$: There is no positive relationship between workplace socialization and employees' motivation in Michael Okpara University of Agriculture Umudike Abia State.

H0$_2$: Co-worker support has no significance effect on employees' turnover intention in Michael Okpara University of Agriculture Umudike Abia State.

Conceptual Framework

A conceptual framework refers to a network or plane of linked concepts that together provide a comprehensive understanding of a phenomenon. The major function of a conceptual framework is to enable the researcher to find connection between the existing literature and his own research goals (Georgia, 1994). Therefore, the conceptual framework in this study shows the link between the variables of study; mainly workplace socialization and employees' job satisfaction.

Workplace Socialization

One cannot begin to explain and emphasize what workplace socialization means without first having a deep understanding of what socialization stands for; according (Abbas .S. Hollman K. 2000) socialization can be defined as the activity that confronts and lends structure to the entry of non-members into an already existing world or a sector of that world. It exerts a surprising impact on employees` performance and organization stability. The term socialization also refers to the process of interaction through which the growing individual learns the habits, attitudes, values and beliefs of the social group into which he has been inducted. In other words is known as the process of inducting the individual into the social world or the process in which people learn the skills, knowledge, values, motives, and roles of the groups to which they belong which can be the communities they live, where they are born or where they work.

From the society point of view, socialization is the way through which society transmits its culture from generation to generation and maintains itself. From the individual point of view socialization is the process by which the individual learns social behavior in other to develop themselves .Carlson, (2006), pointed out two component of socialization which include; Firstly, the process that leads to the adoption of culture while the second component is the outcome of the process. Socialization is seen as society's principal mechanism for influencing the development of character and behavior. Most sociologists treat socialization as a cornerstone both for the maintenance of society and for the well being of the individual (Harrison, 2007).

Job Satisfaction

Job satisfaction is a concept that influences human behavior in the work place. Thus, organizational behavior researchers are interested in accurately measuring job satisfaction and understanding its consequences for people at work (Malak, 2012). Some of the well-known definitions of job satisfaction provide clear insight of it and they were helpful for this research study. Job satisfaction is as the degree to which individuals feel positively or negatively about their jobs. It is an emotional response to one's tasks as well as to the physical and social conditions of the work place. As a concept, job satisfaction also indicates the degree to which expectations in someone's psychological contract is fulfilled. Job satisfaction is likely to be higher for persons who perceive an inducements-contributions balance in their relationship with the employing organization (Ermiyas, 2015).

Turnover Intention

Turnover intention has been defined as an individual's behavioral intention to leave the organization (Abbasi and Hollman, 2000). The relationship between turnover and organizational performance has previously been examined, mainly focusing in the personnel costs related with the selection, recruitment, training, and development of new employees to replace the employees who voluntarily quit the organization (Sangyoon 2016). In reality, the economic costs of turnover represent between 150 and 250 percent of the employee's annual salary (Mello, 2011). Furthermore, employee turnover intention has been linked to ineffective leadership (Massoui 2008). Given the costs, organizations should aim to manage turnover intention strategically. Since an employee's intentions to remain in a job is directly influenced by their relationship with their supervisor (Mello, 2011). In a later study, (Sangyoon, 2016) argued that despite extensive research and organizational interest in turnover, there remains a gap between science and practice in this area. They have provided guidelines for evidence-based retention management strategies focused on shared understanding of turnover, knowledge of cause and-effect relationships and the ability to adapt this knowledge.

Relationship Between Orientation Program, Job Satisfaction, Employee Engagement and Performance

The relationship between employee orientation, job satisfaction and employee engagement is very crucial in today's business operation because people now often do not prefer to stay with the same organization for long. It has become hard for the organizations to exercise influence on the employees for retaining them. If employees exhibit different levels of job satisfaction and if this satisfaction leads to the organization commitment, obviously organizations would want to hire employees with the higher levels of engagement. However, employers normally expect that people with higher levels of job satisfaction will have higher levels of organizational engagement. The reason why satisfaction will lead to the engagement is that workplace socialization with a higher level of job satisfaction may lead to good work life and reduction in stress (Asare- Bediako 2008).

Theoretical Framework

Some of the theories underlying the concept of workplace socialization include the following

Uncertainty Reduction Theory

The uncertainty reduction theory, also known as initial interaction theory was developed in 1975 by Charles Berger and Richard Calabrese. It is a communication theory from the post-positivist tradition. It is one of the only communication theories that specifically look into the initial interaction between people prior to the actual communication process. The theory asserts the notion that, when interacting, people need information about the other party in order to reduce their uncertainty. In gaining this information people are able to predict the other's behavior and resulting actions all of which according to the theory is crucial in the development of any relationship. Perhaps the most common theoretical framework driving socialization research has been uncertainty reduction theory. Following URT, newcomers experience high levels of uncertainty during the organizational entry process, like any organizational members, they are motivated to reduce their uncertainty such that the work environment becomes more predictable, understandable, and ultimately controllable. Uncertainty is reduced through the information provided via various communication channels, notably social interactions with superiors and peers. As uncertainty decreases, newcomers become more adept at performing their tasks, more satisfied with their job, and more likely to remain in their organization (Sangyoon, 2016). Socialization programs influence newcomers' adjustment in this regard by reducing their high levels of uncertainty and anxiety.

Social Exchange Theory

Some Exchange Theory (SET) is a social psychological and sociological perspective that explains social change and stability as a process of negating exchange between parties. During the 1970s sociologists Richard Emerson and Karen Cook expanded what is called social Exchange Theory. SET explains behavior in social relationships and focuses on the behaviors exchange in the relationship (Taormina, 2009).

SET theory is an interesting theoretical lens that views the exchanges within workers relationship. It proposes that individual develop, maintain and exit relationships depending on the perceived benefits or otherwise to them (Narimawati, 2007) Relationship can be seen as a positive or negative experience or both, but people tend to maintain those that they perceive are beneficial to them. Throughout any socialization relationship, a series of exchanges will take place before the new employees will seat in properly in the organization. For instance encouragements support, motivate and relieve them of earlier anxiety. People are more likely to maintain this relationship by committing to meeting up, doing actions agreed upon to enhance their stay in the office. So in terms of workplace socialization, the suggestion is that as long as both parties perceive they are learning and gaining from the relationship, they are more likely to continue the social exchange.

Various forms of interpersonal exchange have been examined. In particular, social exchange relationship in work settings received much interest. Within work setting many different social exchange relationships may arise, like workers with their immediate supervisor, co-workers, employing organizations, customers and suppliers (Harrison, 2007). Social exchange theory is based on a central premise: that the exchange of social and material resources is a fundamental form of human interaction. The theory has roots in economics, psychology and sociology.

Empirical Review

A number of studies have been carried out on workplace socialization. Typically, Hande and Abdullah (2016), investigated the effect of organizational socialization on organizational commitment: Mediation role of psychological empowerment. The purpose of this study is to explore the relationship between organizational socialization and organizational commitment and the mediation role of psychological empowerment. For this aim the survey applied to 150 employees operating in the 3rd Organized Industrial Zone in Konya. SPSS 22 was used to analyze the results. According to results, it has been found that the level of organizational socialization of employees has a positive and significant effect on organizational commitment and a partially mediation role of psychological empowerment in this relationship. It was also determined that employees' psychological empowerment perceptions have a positive and significant effect on organizational commitment.

Malak. (2012) carried out a study on the effect of effect of socialization on employee's efficiency with moderating role of perceived organizational support. A field survey approach was used by selecting 30 employees from telecom sector. Pakistan study area was district Hyderabad. Multistage simple random sampling technique used to select employees. Structured questionnaire was used as data instrument. The result confirm that organizational socialization enhances organization commitment of employees, thus reducing cost of losing employees therefore, socialization program must be designed so which fulfills the expectation of employees. On the basis of result it is recommended that government, and non-government organization must enhance friendly environment in their organization to meet the market competition and more output with less input.

Ermiyas, (2015) investigated induction and Socialization Process and its Impact on Newly Recruited Staffs in Dashen Bank. The study was conducted on new employees who had actively participated the first round of the 2013/14 induction and socialization training program which was held from September 15 to October 10/ 2014. Descriptive research method was applied for describing the existing practice of the Bank's on induction and socialization programs and to evaluate its contribution on the performance as well as perception of the new employees. The mixed method which includes both quantitative and qualitative approaches is utilized to maximize the completion of the research. A questionnaire was designed using structured questions to collect primary data from participants of the induction and socialization training program. One hundred and five questionnaires were distributed and collected from the induction participants. Personal interview were held with HRDD management staff of the Bank. The study used cross sectional survey method. Data was collected through census. The results indicated that most of the new entrants were of the view that the induction and socialization training program is essential for both to the new entrants and the Bank's success. The findings also revealed that Problem has been encountered on performance because of the delay of the induction and socialization training program. This was recommended that HRDD should undertake induction and socialization training programs in due concern as early as possible by being systematic on the schedule, by segregating the target groups considering the essentials of induction trainings and the employment period. The study concluded that for a better induction and socialization training

programs, possible changes should be made in the future. This will have a benefit both for new entrants and the Bank.

Malak (2012), investigated on the effect of socialization on employee's efficiency with moderating role of perceived organizational support. A field survey approach was used by selecting 30 employees from telecom sector. Pakistan study area was district Hyderabad. Multistage simple random sampling technique used to select employees. Structured questionnaire was used as data instrument. The result confirm that organizational socialization enhances organization commitment of employees, thus reducing cost of losing employees therefore, socialization program must be designed so which fulfills the expectation of employees. On the basis of result it is recommended that government, and non-government organization must enhance friendly environment in their organization to meet the market competition and more output with less input.

Summary of the Reviewed Related Literature
The study examined effect of workplace socialization on employees' job satisfaction. The section two of the study empirically reviewed the conceptual framework of the study. however, the study critically reviewed workplace socialization, levels of workplace socialization, process of workplace socialization, dimension of workplace socialization, job satisfaction, dimension of workplace socialization and employee job satisfaction, co-worker support, co-workers relations and psychological conditions, turnover intention, co-worker quality and employee turnover intention, determinants of turnover intention, orientation program, purpose of orientation program, orientation program and employee job satisfaction, relationship between orientation program, job satisfaction, employee engagement and performance, barriers to effective workplace socialization and other possible limitations of workplace socialization. The theories include Uncertainty Reduction Theory, Social Cognitive Theory and Social Exchange Theory. Authors like Hande and Abdullah (2016), Malak. (2012), Ermiyas, (2015), Po Hui and Liu, (2012) contributed on the related study with various findings.

Gap in Literature
The study examined the effects of workplace socialization on employees' job satisfaction of Michael Okpara University of Agriculture, Umudike Abia State Nigeria. Several studies such as Hande and Abdullah (2016) who investigated the effect of organizational socialization on organizational commitment: Mediation role of psychological empowerment in Pakistan, Sangyoon (2016), carried out a study on the effect of effect of socialization on employee's efficiency with moderating role of perceived organizational support in Pakistan, Ermiyas, (2015) investigated induction and Socialization Process and its Impact on Newly Recruited Staffs in Dashen Bank Kenya while Po Hui and Liu, (2012) empirically investigate the relationship between organizational socialization, job autonomy and teachers' job performance considering organizational citizenship behavior in schools (OCBS) as a mediating variable in public secondary schools of Malaysia. But no study has been conducted on workplace socialization on employee job satisfaction in Michael Okpara University of Agriculture Umudike in Abia State, Nigeria. Thus, this is the major thrust of the study.

Methodology
Research Design
Research design is the blue print on how to gather data and analyzing them, all aimed at providing solutions to the problem under investigation and in this study, a survey research design was adopted whereby the researcher used primary data from questionnaire and direct observations.

Sources of Data
Primary and secondary data were used for the study. The primary data were generated from the respondents through distribution of questionnaire and direct observation. The secondary data were obtained from Journal, textbooks, internet material on workplace socialization and so on.

Population of the Study
A population is the totality of the people that are to be interviewed in the field work. Therefore, the target population consists of staff of Michael Okpara University of Agriculture Umudike in Abia State Nigeria the figures of staff strength are shown below:

Table 1: Population Distribution

Cadres	Population
Academic Staff Matters (ASM)	980
Senior Professional Administrative and Technical Staff (SPAT)	1238
Junior Staff Matters (JSM)	600
Total	**2818**

Source: Academic Planning MOUAU, 2022

Therefore, the population of this study is two thousand eight hundred and eighteen **(2818)** staff obtained from the academic planning of the university.

Sample Size Determination
In calculating the sample size, the researcher applied Taro Yamane formula as shown below

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

Where
n = Sample
N = Population
e = Error of tolerance (at 95% confidence level)
I = Statistical constant

$$n\frac{2818}{1+2818(0.05)^2} = n = \frac{2818}{1+7.045}$$

$$n = \frac{2818}{8.045}$$

$$n = 350$$

Therefore, **350** staff of Michael Okpara University of Agriculture Umudike was used for the study.

Sampling Technique
A stratified sampling method was adopted and it gave the staff an equal chance of being selected. The Bowley's proportional allocation formula is given as

$$nh = \frac{nNh}{N}$$

Where:

nh = The number of unit allocated to each stratum
Nh = The number of staff in each stratum
n = The total sample size
N = The actual or total population

Academic Staff Matters (ASM) $\frac{980}{2818} x \frac{350}{1} = 122$

Senior Professional Administrative and Technical Staff (SPAT) $\frac{1238}{2818} X \frac{350}{1} = 153$

Junior Staff Matters (JSM) $\frac{600}{2818} X \frac{350}{1} = 75$

Table 2: Breakdown of the Sample Size

Name of Public Institutions	Population	Sample
Academic Staff Matters (ASM)	980	122
Senior Professional Administrative and Technical Staff (SPAT)	1238	153
Junior Staff Matters (JSM)	600	75
Total	**2818**	**350**

Sources: Field Survey, 2022.

Description of the Instrument
A structured rating scale was prepared by the researcher for the study. The scale comprised of items which bordered on the issues relating effect of workplace socialization and employees'

job satisfaction. The researcher questionnaire was fashioned along the rating scale model with five points likert scale from "Strongly Agreed" to "Strongly Disagreed" in the numeric formant, 5 represents "Strongly Agreed", 4 represents "Agreed", 3 implies "Undecided", 2 means "Disagreed" and 1 connotes "Strongly Disagree".

Validity of the Research Instrument

Validity is the extent to which a measuring instrument measure the concept they are supposed to measure. To obtain a valid instrument, the instrument was scrutinized by an expert in the field of management and final vetting by the supervisor to test for the internal consistency of the instrument.

Reliability of the Research Instrument

Reliability suggests trustworthiness, based consistency and precision of the measurement process. The study adopted Cronbach alpha coefficient of reliability was used to determine the reliability of the instrument and as a general decision rule any reliability score of 0.70 or more is deemed acceptable in business research. Therefore, the cronbach's alpha (α) formula is given as

$$\alpha = \frac{k}{k-1}\left(1 - \sum \frac{S^1}{S^2}\right)$$

Were

α = Cronbach's Alpha Statistics

k = Total number of items in the instrument

$\sum S_1^2$ = Sum of items in the instrument

S^2 = Total variance of the instrument

The Cronbach alpha reliability test for this study indicated 0.912 showing that the instrument administered to the staff were reliable up to 91.2%.

Method of Data Analyses

In achieving the objectives of the study, objective (i) Pearson correlation coefficient was employed. Objectives (ii) and (iii) adopted Z-Test while objective (iv) adopted OLS regression analysis of SSPS Version 20 to test the hypotheses of the study.

Model specification

For Hypothesis 1, we specify the following correlation coefficient model, thus;

$$r_i = \frac{n\sum xy - \sum x \sum y}{\sqrt{(n\sum x^2 - (\sum x)^2).(n\sum y^2 - (\sum y)^2)}}.$$

Y = Employees' job satisfaction

X = Workplace socialization

$\sum$ = Summation sign.

r_i = Correlation coefficient in period.

n = Number of respondents.

For Hypotheses 2 and 3, we specify Z-test model, thus

$$Z = \frac{\overline{X} - \mu_0}{S/\sqrt{N}}$$

Where:

X = sample mean

μ = population mean

S= sample standard deviation

n = number of population

For Hypothesis 4, we specify regression model, thus

$Y = F(X_1, X_2, X_3, X_4 \ldots\ldots\ldots ei)$

$Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 \ldots\ldots\ldots ei$

Where;

Y = Employees' job satisfaction

X_1 = Interpersonal relationship

X_2 = Unmet job expectation

X_3 = Organizational culture

X_4 = Inadequate resources

b_0 = intercept

$b_1 - b_4$ = parameters estimate

ei = error term

Data Presentation of Results/Discussion

Table 3: Return of Questionnaire

Cadres	Number Distributed	Number Lost	Number Retrieved	Percentage of Retrieved
ASM	122	6	116	33.1
SPATS	153	3	150	42.9
JSM	75	4	71	20.3
Total	350	13	337	96.3

Source: Field Survey, 2022

Table 3 above showed that 350 questionnaire was administered to ASM, SPATS and JSM staff of MOUAU, however, 13 questionnaire were lost while 337 questionnaire were retrieved from the respondents with 96.3% retrieved which formed basis of this study.

Table 4: Establish the relationship between workplace socialization and employee job satisfaction in Michael Okpara University of Agriculture Umudike Abia State

Options	SA	A	N	SD	D	MEAN
Employee groups meetings socialization enhances employee performance	169	95	15	20	28	3.3
Employee online group chat socialization boost employee satisfaction	187	89	8	30	18	3.2
Training session socialization enhances employee learning	178	96	12	38	22	3.5
Organization socialization improve organizational performance	211	121	5	10	10	3.5

Source; Field Survey, 2022

SA: Strongly Agree, A: Agree, N: Neutral, SD: Strongly Disagree, D: Disagree.

The table above showed the relationship between workplace socialization and employee job satisfaction in Michael Okpara University of Agriculture Umudike Abia State. Majority of the respondents with the highest mean scores of 3.5, 3.5, 3.3 and 3.2 respectively strongly agreed that Organization socialization improve organizational performance, Training session socialization enhances employee learning, Employee online group chat socialization boost employee satisfaction and Employee groups meetings socialization enhances employee performance. Socialization among employee helps the employees to share, ideas, vision and goals of how to move the organization forward, groups that play together strive to achieve goals together, therefore, management should endeavor to create a platform whether offline or online where management and staff come together to share issues that both concern not only the organization but also the affairs of the employee.

Table 5: Determine the influence of co-worker support on employees' turnover intention in Michael Okpara University of Agriculture Umudike Abia State

Options	SA	A	N	SD	D	MEAN
Financial support improves synergy among employee	148	96	15	31	25	3.0
Moral supports enhance employee job satisfaction	201	114	5	18	14	3.5
Spiritual supports improve employee morale	171	99	11	24	31	3.0
Educational supports enhance organizational learning	167	83	17	48	34	3.1

Source: Field Survey, 2022

The table above showed the influence of co-worker support on employees' turnover intention in Michael Okpara University of Agriculture Umudike Abia State. Majority of the respondents with the highest mean scores of 3.5, 3.1, 3.0 and 3.0 respectively strongly agree

that Moral supports enhances employee job satisfaction, Educational supports enhances organizational learning, Spiritual supports improves employee morale and Financial support improves synergy among employee. The result confirms that co-workers socialization enhance organization commitment of employees, thus reducing cost of losing employees therefore, socialization program must be designed so which fulfills the expectation of employees. On the basis organization should create a friendly environment in their organization to meet the market competition and more output with less input.

Testing of Hypotheses

H0₁: There is no positive relationship between workplace socialization and employees' motivation in Michael Okpara University of Agriculture Umudike Abia State

Table 6: Regression analysis on workplace socialization and employees 'motivation

Variable	Coefficient	t-Statistic	Sig.
Workplace socialization	0.939	34.914	0.002

Source: Field Survey, 2022

The result of the regression showed workplace socialization and employees' motivation. This is evidenced by coefficient value of 0.939. Statistically, the sig.-value of $0.002 < 0.05\%$ significance level, we therefore reject the null hypothesis and accept the alternate which states. There is a positive relationship between workplace socialization and employees' motivation in Michael Okpara University of Agriculture Umudike Abia State.

H0₂: Co-worker support has no significance effect on employees' turnover intention in Michael Okpara University of Agriculture Umudike, Abia State

Table 7: Regression analysis on Co-worker support and employees' turnover intention

Variable	Coefficient	t-Statistic	Sig.
Co-worker support	0.650	0.985	0.005

Source: Field Survey, 2022

The result of the regression showed Co-worker support and employees 'turnover intention. This is evidenced by coefficient value of 0.650 statistically, the sig.-value of $0.005 < 0.05\%$ significance level, we therefore reject the null hypothesis and accept the alternate which states. Co-worker support has a significance effect on employees 'turnover intention in Michael Okpara University of Agriculture Umudike Abia State.

Summary of Findings

The result from the analysis revealed that
  i. There is a positive relationship between workplace socialization and employees' motivation in Michael Okpara University of Agriculture Umudike Abia State
  ii. Co-worker support has a significance effect on employees' turnover intention in Michael Okpara University of Agriculture Umudike Abia State.

Conclusion

The results of this study and similar studies show that there are some reasons that socialization is vital to both employees and organizations. First, the findings of the study revealed that Co-worker support has a significance effect on employees' turnover intention in Michael Okpara University of Agriculture Umudike, Abia State, this implies that co-workers support can decrease negative outcomes such as inappropriate behavior, turn- over, and absenteeism, it enables employees to better participate to attain individual, team, and organizational goals also it can create a learning environment for familiarizing oneself with the organization's values, norms, and policies. Finally, whereas results of socialization are consistent and its effects are immediate, the employees are more likely to successfully adapt to the new environment. Therefore, the study concluded that There is a positive relationship between workplace socialization and employees' motivation in Michael Okpara University of Agriculture Umudike, Abia State

Recommendations

i. Management should endeavor to create a platform whether offline or online where management and staff come together to share issues that both concerns not only the organization but also the affairs of the employee.

ii. Socialization program must be designed so which fulfills the expectation of employees. On the basis organization should create a friendly environment in their organization to meet the market competition and more output with less input.

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Defusing Renewable Energy (RE) Development Challenges and Sustainable Development Potential of Small and Medium Enterprises (SMEs) in Federal Capital Territory (FCT) Abuja, Nigeria

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Abstract

SMEs are the engine that propel economic development of developed nations evidenced in employments, per capita income, raw materials, export revenues, and GDP; but lack of stable and reliable power supply is crippling their operations in Nigeria. Renewable Energy (RE) have been utilized globally to replace fossil energy in many areas but due to some noticeable and resolvable problems, it is highly under-utilized in Nigeria. Dependence on RE sources and a slow change from fossil fuels to the RE sources is fundamental, hence, the need for an investigation on the effect of defusing RE development challenges on the sustainable development potential (SDP) of SMEs in Nigeria. The study specifically determines the effect of knowledge and information (K&I) about RE, RE development problems-solving skills (DPS), RE development strategies (DS), RE engagement and investment drives (EID) and RE system efficiency and effectiveness (SEE) on the SDP of SMEs in Nigeria. The survey method was adopted and 600 questionnaire were distributed to SMEs in the FCT, Abuja, Nigeria. OLS Regression was utilized and it was revealed that K&I about RE, RE DSs, RE EID and RE SEE have significant positive impact on the SDP of SMEs in Nigeria. However, RE DPSs was found to be insignificant at 5%. It was concluded that defusing RE development challenges can significantly impact on the SDP of SMEs in FCT, Abuja Nigeria. It was suggested that the government should intensify campaign on RE development through K&I sharing on media (electronic, print and social) among SMEs operators, enhance RE DPSs among SMEs via relevant training, strategize planning and policies development in RE, making engagement and investment in RE, and make policies for efficient and effective RE development system.

Keywords: *Renewable Energy, Sustainable Development, SMES*

Introduction

Sustainable development is a developmental target of every nations that requires energy generation and utilization as an essential element. Energy is required by man for an assortment of facets of livelihood, be it agricultural, household, manufacturing, commercial, community and social services, and administrative activities. Without energy, many activities of man will be difficult to accomplish talk less of sustainable development. Thus, energy is considered to be one of the complexes, dynamic and multi-interrelated socio-economic problems facing the mankind today, particularly, in the developing nations like Nigeria (Babatunde et al., 2019) and part of the main features for attaining the United Nation's inspirational Sustainable Development Goals (SDGs). Energy is considered more essential because it did not only activate and propel the provision of both water, food security and several other engagements but it also serves as substratum for economic development and factor for sustainable human development objectives of economic, social and environmental (Kumar and Vimala, 2016). Energy is regarded as one of the most significant driver of economic growth in both advanced and emerging nations, as well as one of the major ingredients for the sustainability of Small and Medium-scale Enterprises (SMEs) and the long-term development and expansion of any sector (Pokharel, 2006; Onakoya et al., 2013). Therefore, government at various levels implement several reforms in power sector with novel policies and programs to provide reliable and uninterrupted energy in the economy growth.

Since 2005, many power reforms have been implemented, with the primary goal of privatizing generation and sharing assets and stimulating private investment in the power industry. With recorded insignificant rise in total daily power supply, Ogunleye (2017) stated that power reforms ensure that the government maintains control over transmission assets while making moderate headway in creating a regulatory framework that is appealing to foreign investors. Different proposals were put forward by technocrats and researchers to resolve the energy crisis in Nigeria among which is the development of Renewable Energy (RE). Gujba, et al. (2011) opined that for sustainable development of Nigeria, it is critical to make a gradual transition from fossil fuels to RE sources. Thus, creating a little hub where power is produce through available RE resources will go a long way toward alleviating the electricity shortage by boasting power supply, particularly, in the industrial areas, major markets, and shopping complexes where SMEs are predominantly located. Just like the Ariaria Market Independent Power Plant was built to provide clean, gas-powered electricity to businesses at the famed Ariaria Market. SEforAll-IP (2019) said "Nigeria's energy usage is centered on biomass (85.3%), petroleum derivatives (10.2%), natural gas (2.7%), and electricity (1.9%).

The energy sector is dominated by rapid depletion of forest resources, with fuel wood in the amount of 50 million metric tons devoured yearly in rural areas (representing above 81% of aggregate energy usage)". Though, there is significant natural gas, coal, and RE properties that might be used to generate local electricity, the lack of legislation to capture and develop these resources puts more reliance on fossil fuel energy and fuel wood in Nigeria (Charles, 2014). Nigeria is gifted with huge deposits of energy generation resources (renewable and non-renewable), however, it endowment with immense potential in the RE field is reasonably appealing. Because of its strategic location, it benefits from hydropower generation, having

access to 840-kilometer coastline in the south and two major rivers flowing from the northeast and northwest. Because of its proximity to the Sahara, it receives enough sunshine and has moderate breezes to generate significant power (RE Master Plan, REMP 2005; Charles, 2014; Udochukwu 2014; Chlakpu et al., 2018). Though, these diverse energy sources, Fossil (non-renewable) energy such as oil and gas, kerosene, diesel and propane, and RE like wind, sun and heat are known to be utilized globally to satisfy the power requirement of man side by side with each system having some significance benefits and drawbacks. The limitations of fossil energy such as cost of transportation, inconveniences, insufficiency, unreliability, pollution and utilization timing, provide man with the option of exploring RE that is low costs, modular nature, long life, reliable, clean and highly convenient (*Ellabban, Abu-Rub and Blaabjerg, 2014).* These forms of energy have been under-utilized in Nigeria due to some noticeable and resolvable problems. REMP 2005, and Ibe and Obodoechi, (2019) opined that Nigeria RE is not properly tapped due poor policy, regulatory and institutional framework; prices and financing constraints; lack of incentive for energy efficiency projects; regulation and poor product quality and standards; deficiencies in critical research and development (R&D) areas; and a lack of human and manufacturing capacity that will allow the RE market to scale up quickly. From 2010 to 2017 RE usage in Nigeria is below 10% (Renewable Global Status Report, 2010; 2017).

The RE Master Plan (REMP) articulates Nigeria's vision and outlines a plan for improving the role of RE in achieving long-term expansion. These goals will be fulfilled in three stages: short term (2005-2007), medium term (2008-2015), and long term (2016-2025). (2016-2025). (2016-2025). In the medium term, crude oil will continue to play a significant role; in the medium term, the transition from crude oil to a less carbon-intensive economy that is increasingly powered by gas; and in the long run, is less dependent on hydrocarbons by deploying solar, biomass, small hydro plants, and wind technology. In the short term (2007), medium term (2015), and long term (2025), Energy Commission of Nigeria (ECN) anticipated that renewable and conventional power supply would be 7000MW, 14000MW, and 29,000MW, respectively. RE sources (solar, wind, small hydro, and biomass) are predicted to add 56MW, 701MW, and 3060MW to the energy supply mix in the short, medium, and long term, respectively. This amounts to 0.8 percent, 5%, and 10.5 percent of total electricity demand in 2007, 2015, and 2025, respectively (REMP, 2005).

Nigeria is the largest population in Africa and the seventh largest in the world (Ibe and Obodoechi, 2019). Nigeria's population is expected to reach about 230 million people in the next 20 years, according to UN forecasts. By 2050, it is expected to overtake the United States as the world's third most populated country (UNDESA, 2017). It also accounts for more than 65 percent of the active West African market and it is still the most cost-effective location for the creation of medium and large industrial companies (SEf or All-IP, 2019). Nigeria is Africa's fastest-growing economy and one of the world's largest oil exporter. It is dominantly known for the production of natural raw materials such as agricultural products, mineral resources, labor, and crude oil. The nation has carried out a lot of reform programs aimed at business openness and liberalization since the return to democracy, and thus, becoming one of the top destinations of Foreign Direct Investment (FDI) in Africa. It has witness rapid

economic growth and large investments in infrastructure, oil, mining, agriculture, manufacturing and service sectors including SMEs.

SMEs are the drivers of many economies helping in job creation, economic growth, and export expansion. NBS (2019) said "in South Africa, SMEs contribute 91% to enterprises, 60% of jobs, and 52% of total GDP; in Nigeria, they account for 48% of GDP, 96% of enterprises and 84% for jobs". According to Oyeyinka, (2020), "SMEs make up 96% of all businesses in Nigeria, comparing to 53% in the US and 65% in Europe. It represents almost 90% of the manufacturing/industrial sector in terms of number of firms, and it contributes about 10% of GDP, compared to 40% in Asian countries and 50% in the US and Europe". Apart from their contributions to the GDP, employment generations, revenue generation, utilization of local resources, enhancement in people living standard, and stimulation of creativity, innovation and competition, SMEs are also remarkable and impeccable in assisting big firms with the supply of inputs, provision of services, distribution of products, and provision of information. Thus, many governments including Nigeria are making different policies and programs to encourage and facilitate their sustainable growth and development including the revitalization of the energy sector. The sector has the potential to consume up to 80% of employment, boost per capita income, add value to raw materials supply, boost export revenues, raise capacity utilization in key industries, stimulate economic boom and GDP growth and capable of militating against most of the socio-economic problems of the country including unemployment, poverty, banditry, kidnapping, export dependency, balance of trade and payment, standard of living and social problem.

However, the sector is poorly performing due to poor infrastructural facilities including energy insufficiency. Despite a fast rising economy, the power industry has been unable to offer sufficient and reliable electricity to home residents and industries. As of 2013, over 40% of Nigeria's population was connected to the electrical system, with power outages occurring approximately 60% of the time (Aliyu, Ramli, Saleh, 2013). Similarly, more than 120 million Nigerians, or 75% of the population, do not have access to reliable and inexpensive power, and more than 80% rely on costly diesel and gasoline-fueled backup generators (Roche, et al., 2019). The situation is worsening by the day, despite the fact that the typical daily power supply is about four hours at best, multiple days without power can occur (PWC. 2016). This epileptic supply of power is crippling economic activities which forces individual and enterprises to rely on generators. Roche, et al. (2019) said "despite the extent of fossil fuel-based self-generation is unknown, depending on the number of generators imported yearly, the country had around 15 GW of diesel and petrol-based generation installed capacity in 2015, making diesel and petrol back-up generators power supply the great majority". Small and medium-scale generators dominated the generation with market volume with about 5–75 kVA range based on market segmentation (6WResearch in Roche, et al. 2019). Thus, energy insufficiency is one of the major problems of SMEs that has its fingerprints in many facets. Besides increasing the quantum of the operating costs, it has multiplier effects on the productivity costs, quality, capital access, savings, mortality rate, and poor return on investment. Sustainable development of SMEs cannot be achieved with insufficient energy supply. Thus, the need to address it through the provision of cleanest, easiest, cheapest, and most sufficient and reliable

energy source, RE development. Therefore, RE development and utilization by SMEs sub-sector has the capability to unravel numerous challenges associated to economic and environment (Tijjani et al., 2013). RE sources provide life harvest and a long-term source of revenue for SMEs, due to low cost (no fuel and minimal maintenance), modular nature, reliability, convenience, low maintenance, and clean energy. However, RE development and utilization potential is endanger by several problems, including, lack of Knowledge and Information (K&I) on RE, RE Development Problems-solving Skills (DPS), RE Developmental Strategies (DS), RE Engagement and Investment Drives (EID) by individual businesses, and RE system efficiency and effectiveness (SEE).

The problem of power will not only continue to end the lives of many SMEs prematurely, but will escalate the unemployment rate behold imagination, increase crimes and social menaces (kidnapping, militancy, armed robbery, cattle rustling, prostitution, human trafficking, and fraud) predominately, grow poverty geometrically, back-slake standard of living, increase exportation above projections, multiplier foreign debt to ten times GDP, reduces balance of payment positivity, adversely endanger economic growth and development, and reduce SDGs to a mirage. Based on the above, the study is to investigate the effect of defusing RE development challenges on the Sustainable Development Potential (SDP) of SMEs in Federal capital territory (FCT), Nigeria. Thus, the following hypotheses are stated for validation based on the objective:

    i.   There is no significant effect of KI of RE among SMEs on the SDP of SMEs in FCT, Nigeria.
    ii.   RE DPSs has no significant effect on the SDP of SMEs in FTC, Nigeria.
    iii.   There is no significant effect of RE DSs on the SDP of SMEs in FCT, Nigeria.
    iv.   RE EIDs does not significantly impact on the SDP of SMEs in FCT, Nigeria.
    v.   There is no significant effect of SEE of RE on the SDP of SMEs in FCT, Nigeria.

Literature Review-Conceptual framework

Renewable energy (RE): RE is a type of energy that comes from natural sources such as sunlight, rain, geothermal heat, wind, biomass, and hydropower reservoirs, among others and is replenished naturally (Tijjani et al., 2013). The potential benefits of utilizing RE are: cost effectiveness, non-exhaustibility, environmental friendliness, sustainable development and growth, reduction in the dependency on depleting fossil fuels, and minimizing the green-house gas emission rate of the country (Osunyomi, 2013). Nature has blessed Nigeria abundantly with sufficient RE resources to achieve it SDGs objectives. These according to Charles (2014) and Osunyomi (2013) include water resources (hydropower), wind resources (wind energy), Sunlight (solar energy), and biomass energy (animal, agricultural and wood residues, fuel wood). Among all these, only hydropower resources is sustainably and currently exploited and connected to the national grid while woody biomass (Fuel wood) is the main energy source for rural for centuries (Akinbami in Osunyomi, 2013). However, recent happenings, including increase in the prices of oil, lack of adequate supply of electricity, and the high cost associated with grid extension, are driving the interest in the growth and deployment of other RE resources (Charles, 2014; Tijjani et al., 2013).

Hydropower is energy produced by mechanically translating energy into electricity via a turbine at a high efficiency rate, and Nigeria has vast water resources for hydropower generation (Charles, 2014). Apart from the fact that many part of the country is bless with adequate rainfall, there are considerably hydro potential exemplified by rivers dispersed across the country with prospective locations for hydropower system that can serve numerous isolated needs. According to an analysis of the rivers Kaduna, Benue, and Cross Rivers (at Shiroro, Makurdi, and Ikom, respectively), a total capacity of roughly 4,650MW is available, while the river Mambilla plateau's potential is estimated to be 2,330MW (Zarma, 2006). The eight units with a generation capacity of 760MW were commissioned in 1968, making hydropower Nigeria's most exploited renewable energy source. It has a huge scale prospective (exploitable) of more than 18,600 MW, despite the fact that it only accounts for around 19% of total installed commercial electric generating capability (Zarma, 2006). Challenges such as huge financial investments, poor revenue collection, significant environment damage, and others can be conquer to profit from the full potential of Nigeria's hydropower by developing small hydro, mini hydro (<1MW), and micro hydro (<100KW).

Nigeria has a lot of wind, which might be exploited to generate electricity. Wind resources analysis found that Nigeria's wind speeds is as high as 8.70 m/s in the north, making it the most strategic location for harnessing wind energy (Ajayi, 2007). Wind energy's contribution to national energy usage is presently negligible due to a lack of commercial connectivity to the national grid. Nevertheless, in the early 1960s, five northern states established a few stand-alone wind power plants, largely to power water pumps, as well as a 5kW wind electricity conversion system for village electrification at Sayyan Gidan Gada (Charles, 2014). Lack of policies or regulatory framework of Wind Energy Technology (WET), poor government motivation on WET, lack of focus on the REMP, lack of sufficient funding, and lack of awareness and technical ineptness are some of the major challenges of wind energy growth and usage in Nigeria (Charles, 2014).

The availability of sun in most parts of the nation is one of Nigeria's most valuable assets in terms of solar energy output. Vincent-Akpu (2013) said "Nigeria's equatorial location offers a huge sum of solar radiation that is distributed equally allover, resulting in an average solar radiation of about 19.8 MJm−2 day-1 and average sunshine hours of 6 hours per day, ranging from about 3.5 hours at the coast to 9.0 hours at the far northern border". Uzoma, et al., (2011) added that "with an average daily sunshine of 4–7 hours, Nigeria has the capacity to generate between 3.5kW/m/day and 7.0kW/m/day, more than a hundred times the nation's present grid power usage". Solar energy schemes such as electrification, PV-water pumping, and solar-thermal installations are used for solar cooking, solar crop dryers, solar incubators, water pumping, village electrification, rural clinic and school power supply, vaccine refrigeration, traffic lighting and road sign lighting, and solar chick brooding (Charles, 2014). Apart from sinfulness for photosynthesis, sun radiation can be harnessed for electricity generation by roof- and building-integrated schemes to generate solar energy for the majority of Nigerian (rural dwellers and SMEs) thus, increasing electricity decentralization and access. Solar energy decentralization is individual procurement, usage and application of the system energy through solar system. Solar energy is commonly used by some privileged Nigerians due to its

low-tension transformer, high- or low-tension wiring, and easy equipment and logistic distribution which can easily at low costs. However, the utilization of solar energy still remains low due to challenges such as funding and affordability, ignorance, components failure, political problem, absence of proper institutional structure, low rate of technical skill, total annihilation and theft of components, and lack of local production of system component-PV.

Biomass comes in solid (straw or wood chips), liquid (vegetable oils and animal sludges that can be turned to biogas), gaseous forms, and is obtained from forestry, agricultural, and municipal leftovers, as well as a tiny share of crops planted primarily for fuel (Renewable Global Status Report (RGSR), 2010; Uzoma, et al., 2011). It is usually used to create both power and heat, and it is transformed to biofuels for transportation (RGSR, 2010). Plant biomass can be used as a fuel for SMEs and brewed by anaerobic bacteria found in water lettuce, water hyacinth, manure, cassava leaves, processing waste, urban refuse, solid (plus industrial) waste, agricultural remains, and sewage to produce an inexpensive fuel gas (biogases) (charles, 2014). Aside from the fact that biogas production does not compete with food crops like bioethanol and biodiesel for land, water, or fertilizers, it also reduces the threats that these wastes pose. Charles (2014) said "Nigeria is expected to generate over 227,500 tons of fresh animal waste per day, with the capacity to generate roughly 6.8 million m3 of biogas per day only from animal waste (1kg of fresh animal waste produces about 0.03m3 of biogas)". Despite the fact that biogas technology is not commonly used in Nigeria, research shows that it may be fully developed and implemented with the support of effective technological developments, economic incentives, and institutional development.

Sustainable development: The term "sustainable development" can be described in a variety of ways. The Brundtland Report, often called "Our Common Future," defines it as "meeting current demands without jeopardizing future generations' ability to fulfill their own needs (IISD, 2020)". It is a type of development that meets people's immediate demands without jeopardizing future generations' ability, ensuring a balance of economic growth, environmental protection, and social well-being (Acciona, 2020). The desired outcome is a civilization in which living circumstances and resources are exploited to suit human requirements without harming the natural system's reliability and stability, which is essential for the future. Originally intended to solve environmental challenges, the notion has since been expanded to include economic development, social development, and environmental protection for future generations. Today, through the seventeen SDGs with universal application, sustainability is the cornerstone for the main global framework for international cooperation known as "the 2030 Agenda for Sustainable Development" (IISD, 2020).

SMEs: The definition of SME is controversial and diverse as there is no globally acceptable definition of SMEs. Thus, there are various definitions by different countries and institutions describing it base on sizes, economic sizes, and nature of the corporate sector. Other parameters used include sales volume, assets, staff employment, and account debit turnover. The CBN, according to Highnet (2020) defined SMEs "as enterprises with an asset base of N5 million and less than N500 million, excluding land and buildings, and with 11 to 200 employees, but did not formally establish this definition for reporting reasons". According to

SMIEIS (2006), "SMEs are enterprises with a total capital engaged of not less than $1 million and not more than $200 million, including working capital but minus land costs, and a staff of not less than 10 and not more than 300". According to Abdullahi1 et al. (2015), "SMEs are businesses with ten to forty-nine employees and an annual turnover of five to forty-nine million Naira, while medium scale enterprises have fifty to one hundred and ninety-nine employees and an annual turnover of fifty to four hundred and ninety-nine million Naira". Micro, small, and medium-sized enterprises (MSME) are defined by SMEDAN as follows: "Micro enterprises have less than ten employees and less than five million Naira assets excluding land and building; Small enterprises have ten to forty nine employees and five to less than fifty million Naira assets excluding land and building; Medium enterprises have fifty to one and ninety nine employees and fifty to less than five hundred million Naira assets excluding land and building; Large enterprises have 200 or more people and assets valued more than N500 million minus land and buildings". SMEs are defined as enterprises with annual revenues of less than N100 million and/or fewer than 300 employees (Oyeyinka, 2020). Generally, one will conclude that SMEs across the globe share certain characteristics including same ownership and management, owners and employees close relationship, active participation of owners in decision making, low to medium skills workforce, low to medium assets, low to medium number of employees, local to medium operation, involvement in low to medium capital intensive industries, and high in number among enterprises.

Theoretical framework

Development theories are appropriate for explaining a phenomenon of this nature, a shift from non-renewable energy to RE development and utilization. Among the major development theories are, modernization, dependency, globalization, and world system theories. However, this study is anchored on Modernization Theory (MT) since the phenomenon under consideration is **a** process of modernization within societies. The views of German sociologist Max Weber (1864–1920), which acted as the framework for Harvard sociologist Talcott Parsons' (1902–1979) modernization paradigm, gave rise to MT. The theory looks at a nation's internal factors, believing that "traditional" nations can advance in similar fashions as industrialized nations given aids. It's a theory that explains a country's modernization process as it transitions from a traditional to a modern civilization (Knobi, 2003). MT seeks to describe the process of social evolution as well as identify the social factors that influence growth and development. MT has been critiqued by socialist and free-market ideologies, world-systems theorists, globalization theorists, and dependency theorists, among others. MT not only highlights the changing process, but it also emphasizes the responses to that change. Internal dynamics, as well as social and cultural institutions and the adoption of new technologies, are all taken into account. Hence, advancements in data technology and the upgrading of transportation, communication, and industrial processes make modernization preferable to the status quo. As per the notion, traditional religious beliefs and cultural features of the old ways of doing things become less relevant as modernity persists via the reform and innovation (Gavrov and Klyukanov, 2015). Using Fossil power is becoming a traditional way of providing energy. Development and utilization of RE is the new paradigm (modern way) in the energy sector.

Empirical Review

Ibe and Obodoechi (2019), focuses on energy efficiency in SMEs, with the goal of gaining a better understanding of the key players, structure, and dynamics of the current market, as well as conducting an effective decomposition study to identify energy/SMEs conservations that contribute to Nigerian GDP growth and financial opportunities. Energy efficiency initiatives implemented by SMEs could result in significant energy savings. It could also provide significant economic benefits to SMEs by enhancing their productivity, competitiveness, and resilience, as well as greater social and environmental benefits. However, the sector's enormous potential for energy efficiency will not be realized without support initiatives geared at SMEs. This policy trail demonstrates how governments, industry associations, financial institutions, and other stakeholders may collaborate to create and administer effective initiatives. Osunyomi (2013), study RE's possibilities for long-term agricultural expansion and economic progress in Nigeria. The goal of the exploratory study is to find ways to tap into the rising RE sector's possibilities in Nigeria's agricultural sector in order to help the country achieve long-term economic growth and development. The purpose of this research is to demonstrate the policy methods and target gains that may be realized if the underutilized RE sector is applied in Nigeria's agriculture sector, as well as the nation's economy as a whole. The study was undertaken using a qualitative literature review of previously available materials on the subject area. The study stated that productive exploitation of RE has the ability to assist the continuous development of main economic sectors, the mitigation of climate change's negative effects, and Nigeria's economic growth.

Research Methodology

The study utilizes survey-descriptive design where primary data is mainly used. The population of the study is the owners of SMEs in FCT Abuja, Nigeria with capacity of developing and utilizing RE which is unknown. Therefore, six hundred (600) of such SMEs were conveniently selected to represent the six area councils (Gwagwalada, Kuje, Kwali, Abaji Bwari, and Municipal council areas) of FCT. Questionnaire is principally used for collecting data which is scale ranging from strongly Agree, Agree, Undecided, Disagree to Strongly Disagree (Likert Scale) (scored 5, 4, 3, 2, and 1). The questions structured were comprehensive, relevant, clear and unambiguous to guarantee accuracy and its reliability was evaluated by the answers of sixty (60 or 10%) participants, who were randomly picked for pre-testing. The pre-test was conducted to determine how the questionnaire would work and whether any changes were required. Thus, modifications were made to questions where necessary and research assistance were trained as administrators and interpreters of the questionnaire. The reliability test was conducted using Cronbach's alpha reliability test with a coefficient of 0.9530 which shows that the variables are reliable. Variance Inflationary Factor (VIF) test with a mean of 5.36 (see table 3) was done which indicate evidence of the absence of collinearity.

Both descriptive statistics and inferential statistics are utilized for data analysis. Measures of central tendency are used to project the picture conveyed by the data set. The inferential statistics (Ordinary Least Square (OLS) technique of multiple regression) test the propositions to draw logical and reasonable inferences based on the following model:

$$SDPRE = \alpha + \beta_1 KI + \beta_2 DPS + \beta_3 DS + \beta_4 EID + \beta_5 SEE + \varepsilon$$

Where: SDPRE is Sustainable Development potential of RE of SMEs; RI: Knowledge and information of Renewable Energy among SMEs; DPS: RE Development Problems-solving skills; DS: RE Development Strategies; EID: RE Engagement and Investment Drives; SEE: RE System Efficiency and Effectiveness; E=Error Term; a=Autonomous Unit (Constant); $\beta_1, \beta_2, \ldots\ldots\ldots\beta_5 =$ Parameter Coefficient

Results and discussion of finding

This study analyses the data using both descriptive and inferential statistics through STATA 13.0. The mean, standard deviation, minimum and maximum are the descriptive statistics used while correlation and OLS regression are used for the inferential statistics.

Table 1: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
SDPRE	556	4.315348	0.6862559	2.666667	5
KI	556	3.403327	0.7367341	1.75	4.5
DPS	556	3.248201	0.7666385	1.66667	4.66667
DS	556	3.333333	0.6474714	1.66667	4.66667
EID	556	3.222572	0.6601859	1.75	4
SEE	556	3.283573	0.7190542	1.66667	5

Source: Researcher Computation from Stata 13.0

Table 1 shows that the mean (average) for SDPRE, IK, DPS, DS, EID, and SEE of 4.32, 3.40, 3.25, 3.33, 3.22, and 3.28 points and standard deviations of 0.69, 0.74, 0.77, 0.65, 0.66 and 0.72 indicating a wide value from the average. The results show minimum value of 2.67, 1.75, 1.67, 1.67, 1.75, and 1.67 and maximum of 5, 4.5, 4.67, 4.67, 4, and 5 for SDPRE, IK, DPS, DS, EID, and SEE respectively.

Table 2: Correlation Matrix

	SDPRE	IK	DPS	DS	EID	SEE
SDPRE	1.0000					
IK	0.8750	1.0000				
DPS	0.7673	0.08167	1.0000			
DS	0.7484	0.7199	0.8075	1.0000		
EID	0.8520	0.7926	0.6027	0.7598	1.0000	
SEE	0.6919	0.7995	0.8163	0.8291	0.7392	1.0000

Source: Researcher Computation from Stata 13.0

Table 2 represents the correlation matrix of the variables used in the study. The result shows that SDPRE has positive relationship with IK, DPS, DS, EID, and SEE at 88%, 77%, 75%, 85%, and 69% respectively. This means that the independent variable, sustainable development potential (SDP) of RE has positive and strong correlation with the independent variables, Knowledge and Information availability about RE among SMEs, RE Development

Problems-solving Skills among SMEs, RE Development Strategies among SMEs, RE Engagement and Investment Drive SMEs, and Efficiency and Effectiveness of RE system among SMEs.

Table 3: Regression Result of Online Purchase Intention and Perceived Risk

Variables	Coef.	Std. Err	t-Value	Prob. (Sig)
Constant	1.115698	0.0546176	20.43	0.000
IK	0.3675601	0.331639	11.08	0.000
DPS	0.3485018	0.0319828	10.90	0.061
DS	0.0668427	0.0355997	1.88	0.000
EID	0.5773662	0.0321598	17.95	0.000
SEE	-0.3857672	0.0299568	-12.88	0.000
OBS			556	
R^2			0.8847	
Adjusted R^2			0.8837	
F-Statistics			0.0000	
VIF			5.36	

Source: Researcher Computation from Stata 13.0

Table 3 shows the OLS result on the effect of RE development on the sustainable development potential of SMEs in Federal Capital Territory (FCT) Abuja, Nigeria. The F-statistic of 0.0000 indicates that the equation/model has a good fit. That is, the explanatory variables (IK, DPS, DS, EID, and SEE) are good explainer of the change in dependent variable (SDPRE). The R^2 of 0.885 shows that IK, DPS, DS, EID, and SEE explained approximately 89% variations in sustainable development potential of SMEs. The remaining 11% are cause by factors not capture in the model.

Furthermore, the result shows that a unit increase in the Knowledge and Information on RE among SMEs, RE development problems-solving skills among SMEs, RE development strategies among SMEs, and RE engagement and investment drives of SMEs will lead to 37%, 35%, 7%, and 58% increase in sustainable development potential of SMEs; while a unit increase in efficiency and effectiveness of RE system among SMEs (REEE) will cause 39% decrease in sustainable development potential of SMEs.

The results indicate that KI has a significant p-value (0.000<0.05) and the study rejected the Ho_1 statement that there is no significant effect of KI about RE among SMEs on the SDP of SMEs in FCT. DPSs P-value is insignificant at 5% (0.061<0.05), thus, Ho_2 that RE DPSs has no significant effect on the SDP of SMEs in FCT is accepted. More so, DS P-value is significant at 5% (0.000<0.05), therefore, the hypothesis that there is no significant effect of RE DSs on the SDP of SMEs in FCT is rejected. Further still, EID P-value is significant at 5% (0.000< 0.05), the study hypothesis that there is no significant effect of RE DSs on the SDP of SMEs in FCT is rejected. SEE significant P-value (0.000 <0.05) led to the rejection of the statement that there is no significant effect of SEE of RE on the SDP of SMEs in FCT.

The result is in line with those of Ibe and Obodoechi (2019), who found that enhancing SMEs' implementation of energy efficient technologies can lead a significant energy savings, larger social and environmental advantages. It's also the same with Osunyomi's (2013) study that productive exploitation of RE has the capacity to assist the continuous expansion of main economic sectors, the mitigation of climate change's negative effects, and Nigeria's economic growth.

Conclusion and Recommendations

Based on the findings, the study concludes that defusing RE development challenges can significantly impact on the sustainable development potential of SMEs in FCT, Abuja Nigeria. Thus, the study recommends that:

i.   The government should intensify campaign on RE development through knowledge and information sharing on electronic, print and social media among SMEs operators.
ii. The government and concerns bodies should enhance RE development problems-solving skills among SMEs through relevant training, symposia, workshops, and seminars.
iii. There should be should strategically planning and policies development in RE development by government, concern bodies and SMEs owners.
iv. Relevant bodies, including government, private sectors, non-governmental organizations, should be encourage to make tangible engagement and investment in RE development among SMEs in Nigeria.
v.   The efficiency and effectiveness of RE development system should be enhanced by all concern for the sustainable development of SMEs in FCT.

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The Relationship Between Entrepreneurial Orientation and The Performance of Real Estate Firms: Investigating the Moderating Role of Firms' Age

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Abstract

In Nigeria, there is a dearth of information on the moderating role of the age of firms in determining the performance of such firms. This study, therefore, examines the moderating role of the age of firms on the relationship between Entrepreneurial orientation (EO) and the performance of real estate firms in Lagos, Nigeria. Data were collected through questionnaire administration and analysed using Hierarchical linear regression model. The results, among others, revealed that the age of firms is positive and significant at $P < 0.05$ to the performance of the real estate firms in the study area. To generalize the results of this study, it is recommended that the model used in this study be replicated in different industries in future research.

Keywords: *Entrepreneurial orientation, Real estate firms, Performance, Firms age*

Introduction

The importance of real estate has been recognised in developing and developed countries as one of the sectors that contribute to economic development. Apart from meeting one of man's essential needs, the industry plays a vital role in economic development by providing employment opportunities, wealth creation, enhancing income distribution, and poverty alleviation (Maragia, 2008; Kongolo, 2010; Masika, 2010). Real estate represents the single largest investment and accounts for the largest share of wealth in most nations' balance sheets (Baldwin, Nakamura and Prud'homme, 2010). The sector's contribution to the Nigerian Gross Domestic Product (GDP) is also significant (National Bureau of Statistics, 2015). Investing in real estate involves the purchase, ownership, management and sale of real estate for profit. It also involves buying shares of real estate (securitised) for investment purposes (Cummings, 2000). As an investment, the real estate covers all categories of properties, including single and multi-family residential dwellings, commercial or office spaces, warehouses, retail outlets, shopping complexes, and agricultural lands (Masika, 2010). It is an asset fixed in nature relative to other forms of investment. It is capital intensive and requires high cash flow from investors (Burton, 2010).

Despite the advantages of the real estate sector, it remains one of the sectors in developing countries that perform below expectations. Davidsson, Steffens and Fitzsimmons (2010) and Olowofeso (2021) affirmed that many real estate firms underperform due to the developers' entrepreneurial principles employed to run the business. According to Burton (2010), real estate developers need to use entrepreneurship principles to focus on exploiting opportunities, attracting customers, and increasing performance. Entrepreneurial orientation (EO) has been proven to be one of the major drivers and predictors of business performance (Balan and Lindsay, 2010; Gupta and Batra, 2015; Olubiyi, Egwakhe, Amos and Ajayi, 2019; Olowofeso, 2021). In another study, Dyer and Ross (2008) reported that a lack of EO is one of the challenges that inhibit any business's performance. Rauch, Wiklund, Lumpkin and Frese (2009), Messersmith and Wales (2011), and Wales, Gupta, and Mousa (2011) argue that in addition to EO, other exogenous variables also influence the performance of a business. Most previous studies ignore a more complex-mediated relationship in the studies involving EO and business performance. Based on the foregoing, there is inadequate research to model the moderating variable between EO and a business's performance, particularly in the real estate sector. Lechner and Gudmundsson (2014) affirm that a further study is required to understand the causal mechanisms of EO effects on other variables. This study will contribute to the research gap on moderating variables' roles in the relationship between EO and business performance using real estate firms as a case study.

Literature Review

Concept of real estate investment

Real estate investment represents a significant part of many institutional portfolios. It involves purchasing, owning, and managing real estate for profit rather than using it as a primary residence (Cummings, 2010). This is undertaken for its ability to provide returns in the form of capital and benefits (Baum and Crosby, 1998). This return can be maximised when the property is in good physical condition. The owner can also enjoy maximum utility from the

property's uses. A relative lack of liquidity characterises real estate, and high transactions cost is associated with real properties. It has locational fixity and is heterogeneous in nature. It is an investment that is not directly traded in a centralised exchange but transferable.

Real estate can be categorised into two investment types - direct (physical) and indirect (securitised or financial). Direct real estate investment involves the acquisition and management of actual physical properties, while indirect real estate investment involves buying shares of real estate investment companies, such as real estate investment trusts (REITs) (Georgiev, 2002). Since assets like land and houses have always tended to appreciate, it is one of the safest ways to invest money in Nigeria (Muchoki, 2013). Investment in real estate in Nigeria started during the colonial era when people invest in real estate mainly for residential, agriculture, and religious property for cash or kind (Olayiwola, Adeleye and Ogunsakin, 2005). Olayiwola *et al.*, (2005) observed that the major transformation in real estate investment occurred with houses and administrative offices provision for the colonial administrator in the cities. The advent of colonialism in Nigeria led to rapid urbanisation, high demand for residential and commercial real estate investment. The real estate investment got a boost as the different regional governments, corporate and private individuals embarked on different housing strategies to meet the teeming populace's needs (Ogu, 2001).

Entrepreneurial Orientation (EO)
In strategic management and entrepreneurship literature, EO has been defined as the firm's entrepreneurial activity that emerged as a major construct over recent years. It is defined as the process, practice, and decision-making activity that leads to new entry (Lumpkin and Dess, 1996). EO has also been described as entrepreneurial process that managers use to act entrepreneurially. According to Lumpkin and Dess (1960) and Antoncic and Hisrich (2001), EO is considered an essential component of successful organisations. EO was closely associated with a firm's performance (Antoncic and Hisrich, 2001; Wiklund and Shepherd, 2005; Olubiyi *et al.*, 2019; Olowofeso, 2021). Researchers such as Zahra and Covin, (1995) and Wales *et al.*, (2011) have observed a positive effect of EO on a firm's performance. However, George, Wood and Khan (2001), Tang and Koveos (2004) and Zainol and Daud, (2011) did not find a positive effect between EO and firm performance. Some contradicting results have also been observed that EO as an individual construct did not positively relate to firm performance (Soininen*, 2012; Dzomonda and Masocha, 2018). The inconsistency has indicated the need to re-examine the EO-performance relationship in any business, including real estate.

EO is also a multidimensional construct because the dimensions of EO vary independently and are subject to the context of environment and organisation (Lumpkin and Dess, 1996). EO has multiple dimensions: innovativeness, proactiveness, comparative aggressiveness, risk-taking, and autonomy (Hughes and Morgan, 2007; Li, Zhao, Tan and Liu, 2008; Casillas and Moreno, 2010). Innovativeness refers to the key business strategy that organisations use to achieve competitive advantage (Bloch and Bhattacharya, 2016). It refers to the willingness to support creativity in introducing a new product, service, or process into the market, which can either be technological or product market-based (Ariguzo, Abimbola, and Egwakhe, 2018).

Proactiveness involves pioneering in the market, seeking business growth derived from being the first mover, and a forward-looking perspective that involves introducing new products or services ahead of the competition in the market (Ambad and Wahab, 2013; Deepa-Babu and Manalel, 2016). Comparative aggressiveness refers to how firms engage with the established market, including how they respond to competition. It can also be defined as a firm's capacity to outweigh and be ahead of rivals at grasping every opportunity (Ogunsiji and Ladanu, 2010). At the same time, risk-taking is the pursuit of business where the outcome is uncertain and profit is the potential reward for bearing the risk (Deakins and Freel, 2012). Autonomy is the extent to which employees and other individuals can act independently in organisations to pursue ideas and opportunities where they have responsibility for their success and failures (Lumpkin, Cogliser and Schneider, 2009; Rauch et al., 2009). It could also refer to independent action in terms of "bringing forth an idea or a vision and carrying it through to completion", including the concept of free and independent action and decisions taken (Lumpkin and Dess, 2011). Entrepreneurs are associated with more of a degree of freedom in combining and organising resources because a firm's success depends on the entrepreneurs' level of autonomy ((Lumpkin and Dess, 2011).

Firms' Performance
The performance of a firm can is the level at which the firm achieves its goal. In management research, the term performance is not new. The definition depends on the viewpoint of several areas of study (Aminu and Shariff, 2015). Performance can also be defined as the value that the stakeholders derive from a firm (Wu, 2009). For the stakeholders to have superior performance, the organisation needs to achieve its set objectives effectively and efficiently (Gathungu, Aiko and Machuki, 2014). In the entrepreneurship field, a firm's primary concern is performance (Gathungu et al., 2014). Despite the consensus, researchers have failed to develop an agreed measure of performance (Odhiambo, 2015). In Nigeria, research efforts have been targeted at real estate investment performance. The focal points of these studies have been varied. For instance, the performance of real estate portfolio (Olaleye, 2000), the performance of real estate investment and securities (Amidu et al., 2008), the comparative performance of direct and indirect real estate investment (Bello, 2003; Amidu and Aluko, 2006; Oyewole, 2006; Olaleye et al., 2010; Oyewole, 2013). Different indicators have also been used to measure performance in the literature without justifying their selection. For instance, in the last two decades, performance measure has changed from financial indicators due to the lack of objective data. The interest is more towards the manager/owner and the firm's subjective perceptions, using indicators relating to activities being performed in a firm.

EO and Firm Performance
The EO construct has also been investigated in the literature. Many of the studies across a range of industry sectors have used between one of the five EO-dimensions. In most of these studies, the EO-dimension and the firm's entrepreneurial activities are considered as independent variables while performance is regarded as a dependent variable (Pett and Wolff, 2010). The final result of entrepreneurial activities is the improvement of the performance and it is contended that the higher the level of EO activities of a firm, the higher its performance (Wiklund and Shepherd, 2005; Wales et al., 2011). According to Aloulou and Fayolle (2005),

an innovative firm is not considered entrepreneurial if it does not take risks or display proactiveness when dealing with competitors and the environment. A strong ability to demonstrate excellent performance in EO's three dimensions (innovativeness, proactiveness, and risk-taking) can be described as an entrepreneurial organisation (Covin and Slevin, 1989). Extensive studies have shown a significant influence of EO on firms' performance (Wiklund and Shepherd, 2005; Grande *et al.*, 2011). The nature and extent of the effect seem to differ between different types of organisations (Li *et al.*, 2009; Tzokas *et al.*, 2001; Casillas and Moreno, 2010). Researchers have confirmed EO's positive and significant effect on the success of small firms (Keh, Nguyen and Ng, 2007; Olubiyi, *et al.*, 2019; Olowofeso, 2021). As such, EO was closely associated with the performance of firms (Zahra and Garvis; 2000; Antoncic and Hisrich, 2001; Wiklund and Shepherd, 2005; Wales *et al.*, 2011). However, other studies did not find a positive and significant relationship between the EO and the performance of firms (George *et al.*, 2001; Tang and Koveos, 2004; Zainol and Daud, 2011). Thus, an individual construct did not positively relate to performance (Soininen, 2012). Due to the mixed result, there is the need to re-examine the EO-performance relationship in any business firm, real estate inclusive.

Age of the Firms

The age of organisations is considered as a firm's period of operational existence. That is the number of years a firm has been in operation from its inception (Deakin and Massey, 2013). The age of the firms' moderates the relationship between EO and real estate firms. Previous studies have pointed out that the older the established firm is the more likely it is to be frequently innovative (Zahra and Nielsen 2002). The survival and success of a business depend on the firm's size and the length of time it has been in operation. Kristiansen, Furuholt and Wahid (2003), found that the number of years a firm has been in operation was crucial to its performance. However, in the study conducted by Indarti and Langenberg (2004), the length of time did not commensurate to business performance. In this present study, firms' age was measured by the number of years the firm has existed.

Methodology

The target population for this study was the registered Real Estate Development Companies (REDC) owners or managers accredited by the Real Estate Developers Association of Nigeria (REDAN) and the Practicing Estate Surveyors and Valuers (PESV) owners or managers registered by the Nigerian Institutions of Estate Surveyors and Valuers (NIESV) in Lagos State. In all, a total of 1,430 firms of REDC and PESV were located in Lagos State as obtained through the researcher's field investigation from the liaison offices of the REDAN and NIESV in the Lagos States. Out of the 1,430 firms of REDC and PESV, 500 firms were chosen as a sample size for the study. Primary data were collected from these respondents using a structured questionnaire. The questionnaire was randomly distributed, and only 407 copies were returned. Out of these, 15 copies were not filled properly and were considered invalid for the data analysis. This infers that the 392 copies used for the analysis gave a response rate of 78%. The data were analysed using six stages of hierarchical multiple regression using SPSS version 25 software.

Results And Discussion

Table 1: Summary Statistics of the Moderating, Independent and Dependent Variables

Variable	Minimum	Maximum	Mean	SD	Skewness	Kurtosis
AGEF	2	35	11.55	7.237	0.775	0.012
INOV	2	5	3.94	0.617	-1.245	1.692
PROV	1	5	3.94	0.772	-1.494	2.764
COMA	1	5	3.80	0.661	-0.887	2.054
RISK	1	5	3.86	0.709	-0.868	1.249
AUTO	2	5	3.75	0.624	-0.163	0.191
PERF	2	5	4.01	0.729	-0.714	0.387

AGEF (Age of the firms), INOV (Innovativeness), PROV (Pro-activeness), COMA (Comparative aggressiveness), RISK (Risk-taking), AUTO (Autonomy), PERF (Performance)
Source: Field Survey, 2021

Table 1 shows the summary statistics of the variables. The table provides the minimum, maximum, mean, standard deviation, skewness, and kurtosis variables. Skewness and Kurtosis tests were conducted to analyse the normality of data. The lowest value for skewness was -0163, while the highest value was 0.775. On the contrary, the kurtosis value was in the range of 0.012 to 2.764. The values of skewness and kurtosis indicate that the normality of the data was distributed normally. The Multi-collinearity test was also computed to measure the rate of inter-correlations among the independent variables. The result shows no multicellularity problem between the independent variables because the tolerance values are more than 0.10, and the VIF values are less than 10. Thus, multicellularity is not a problem for this study.

Table 2: Correlation Matrix of the Moderating, Independent and Dependent Variables

Variables	1	2	3	4	5	6	7
1. AGEF	1						
2. INOV	.396**	1					
3. PROV	.307**	.751**	1				
4. COMA	.272**	.643**	.558**	1			
5. RISK	.284**	.689**	.620**	.634**	1		
6.. AUTO	0.021*	.318**	.443**	.389**	.496**	1	
7. PERF	.278**	.646**	.577**	.393**	.493**	.186**	1

** highly significant relationship   * low significant relationship
Source: Field Survey, 2021

The correlation analysis of the variables is displayed in Table 2. This was used in computing the linear connection among the diverse variables of a conceptual model (Attia & Essam, 2018). The result shows a highly significant and positive link between the moderating variable (age of the firms), the independent variables (EO- dimensions) and the dependent variable (performance of real estate firms).

Table 3: Regression model shows the effect of age of the firms on the five EO – dimensions

Relationship	B	R	R^2	R^2 change	Sig F	Change Sig F
AGEF *INOV	0.750***	.646	0.417	0.340	0.000	0.000
AGEF* PROV	0.513***	.587	0.344	0.267	0.000	0.000
AGEF*COMA	0.377***	.431	0.437	0.109	0.000	0.000
AGEF*RISK	0.463***	.513	0.264	0.186	0.000	0.000
AGEF*AUTO	0.211***	.331	0.110	0.033	0.000	0.000

*** significant at 1% level
Source: Field Survey, 2021

The moderating effect of the age of the firms on each of the five identified EO-dimensions is displayed in Table 3. Five sets of interactions term were produced: the interaction term of the firms' age and innovativeness, age of the firms and proactiveness, age of the firms and comparative aggressiveness, age of the firms and risk-taking, and finally, the interaction term of the age of the firms and autonomy. Each set of interaction terms was tested separately, this is because the correlation between interaction terms was high, and therefore, putting all variables together would produce a multicollinearity problem. More importantly, the purpose is to examine the moderating effect of age on each of the five EO dimensions. Thus, far less would be learned about the problem if the entire EO-dimension is combined as one set effect. Furthermore, previous empirical studies have provided evidence that separate testing of moderated effectiveness of variables is valid (Zahra and Nielsen, 2002; Zhang, 2004).

The interaction of the variables provides an unstandardised beta value of the age of the firms and innovativeness as 0.750, with an R^2 of 0.417 and significant at 0.000, while the interaction between the age of the firms and proactiveness gives a beta value of 0.513, with an R^2 of 0.344 and significant at 0.000. The link between the firms' age and comparative aggressiveness has a beta value of 0.377, R^2 of 18.6 and significant at 0.000. Similarly, the interaction between the firms' age and risk-taking has a beta value of 0.463, R^2 of 0.264 and a significant value of 0.000. While the interaction between the age of the firms and autonomy gives a beta value of 0.211, R^2 of 0.110, and a significant value of 0.000, it can be observed from Table 3 that the beta value of all the EO- dimensions has a positive and significant value with the dependent variable. The R^2 value of all the variables is weak. For example, the link between the moderating variable and innovativeness accounts for 41.7%, with proactiveness it accounts for 34.4%, while the association between the moderating variable and comparative aggressiveness, risk-taking and autonomy accounts for 18.6%, 26.4%, and 11%, respectively. This agrees with previous studies that the length of the time the business has been in operation is of paramount importance to the survival and success of that business. In a study conducted by Kristiansen *et al.*, (2003), the outcome indicated that the length of time an enterprise had been in operation was significantly related to the business performance. Older firms are expected to have the capacity to employ entrepreneurial orientation dimensions in their operations (Zahra and Nielsen, 2002). However, according to Indarti and Langenberg (2004), the length of time the business has been in operation is not significantly related to its performance. In another study by Adinoyi, Yusof and Ernawati (2014), interactions between the firms' age and entrepreneurial orientation

dimensions did not significantly influence their innovative performance. Hence, a firm's innovation practice does not depend on its age.

Table 4: Hierarchical Regression Model

	M1	M2	M3	M4	M5	M6
(Constant)	3.690**	1.028**	0.979**	1.057**	1.026**	1.242**
AGEF	0.028*	0.003	0.002	0.003	0.003	0.001
INOV		0.750**	0.564**	0.604**	0.569**	0.539**
PROV			0.199**	0.210**	0.195**	0.227**
COMA				-0.074	-0.102	-0.087
RISK					0.087	0.127*
AUTO						-0.113*
R	0.278	0.646	0.661	0.663	0.665	0.67
R Square	0.077	0.417	0.437	0.439	0.442	0.449
R Square Change	0.077	0.340	0.019	0.003	0.003	0.006
Sig F	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***
Sig. F Change	0.000**	0.000**	0.000**	0.184	0.138	0.037*

* significant at 10% level
** significant at 5% level
*** significant at 1% level
Source: Field Survey, 2021

Table 4 shows the model summary as the new independent variable is introduced into the model. The parameter estimates and their test of significance are given in the first part of Table 4, while the lower part of Table 4 is the statistics for measuring the changes in the model. Model 1 shows the relationship between the moderating variable (age of the firms) on the dependent variable, with an R value of 0.278 and both R^2 and R^2 change 0.077 and the relationship was significant at 0.000. Thus, 7.7% of the variance in the dependent variable was explained by the variable in the model. Model 2, R^2 (age of the firms and innovativeness), improved over the earlier model, with an R-value of 0.646, R^2 of 0.417 and R^2 change of 0.340 with a significant value of 0.000. Thus, 41.7% of the dependent variable variance had been accounted for by the variable in model 2. Model 3, with three predictors variables (age of the firms, innovativeness and proactiveness), gave better R-value values of 0.661 with R^2 of 0.437 and R^2 change of 0.019 and a significant value of 0.000. This is an indication that 43.7% of the variance in the dependent variable was accounted for. Model 4, with four predictors variables (age of the firms, innovativeness, proactiveness and comparative aggressiveness) with an R-value of 0.663, R^2 of 0.437 and R^2 change of 0.003, the model was significant at 0.000. Thus, 43.9% of the variance was accounted for by the model. Model 5, with five variables (age of the firms, innovativeness, proactiveness, comparative aggressiveness and risk-taking) with an R-value of 0.665, R^2 of 0.442, R^2 change of 0.003 and a significant value of 0.000. Thus, 44.2% of the variance in the dependent variable was accounted for by the predictors' variables.

The sixth and the final models comprised six variables (age of the firms, innovativeness, proactiveness, comparative aggressiveness, risk-taking and autonomy) with an R-value of

0.667, R^2 of 0.449, R^2 change of 0.006 and the p-value was significant at 0.000. Thus, the R^2 of 0.449 indicates that 44.9% of the variance in the dependent variable has been accounted for by the predictors' variables. This implies that introducing a new independent variable into the model would lead to an increase in both the R-value and R^2 value of the models. Model 1 with one predictor variable has the lowest value of 0.278 and R^2 value of 0.077, while model 6 with six predictors' variables has the highest value and R^2 value of 0.67. This finding is consistent with Zahra and Nielsen (2002), Vijayakumar (2011) and Machirori and Fatoki (2013) that older established firms will likely be proactive, frequently have access to innovation, resources and are more likely to increase in their performance. The result is also in line with the previous study by Islam, Khan, Obaidullah and Alam (2011). According to Hashim (2005), the age of a firm plays a vital role in determining the firm's performance and can further determine how well entrepreneurship has been developed in the country. Furthermore, Niklind and Shepard (2005) argued that older firms can align firm attributes with characteristics of the environment and outperform other firms.

Furthermore, Akinwunmi and Adeyanju (2011), disagreed with the finding of Fatoki (2013). Christiansen *et al.,* (2002), observed that the age of the firm does not determine its performance. According to Akinwunmi and Adeyanju, the performance of the firm depends on the entrepreneurial skill of the owners/manager that manages the firm. Malik (2011) found that there are no influences between firms' age and performance. The study argues that it cannot be concluded that older firms will be more profitable. The younger the firm the more it is associated with performance compared with the older firm. In other studies by Salman and Yazdanfar (2012) and Yazdanfar (2013), the age of the firm was negatively related to firm performance. Mehari and Aemiro (2013) and Farah and Nina (2016) also found that statistically there are no significant influences between the age of the firm and profitability. The younger the firm the more it is associated with innovation, more information, knowledge and opportunities compared with older firms.

Conclusions, Suggestions for Future Studies and Recommendation

This study aimed to analyze the moderating role of the age of firms' in the relationship between EO and real estate performance in Lagos, Nigeria. A conceptual model was proposed and tested empirically using a sample of 392 owners/managers of real estate firms in Lagos, Nigeria. The outcome of the survey exhibited that the enterprise's age is positive and significant at $P < 0.05$ to the performance of the real estate firm in the study area. This study has some restrictions which can be overcome in further research. First, the study was specifically conducted in the real estate firms in Lagos, Nigeria. Further research may be conducted in different industries to generalize the results of this study. Further study may consider moderating variables like the educational level and industrial experience of the owners/managers of the firms. This study has diverse practical and theoretical propositions for the owners/managers of real estate firms. It is highly recommended to replicate this model in other areas and different industries in Nigeria.

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Readiness of Counselling Psychologists in the Era of COVID-19

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Abstract

This study aimed to investigate the readiness of counselling psychologists in the era of COVID-19. Two hundred and fifteen (215) respondents participated in the survey. Confirmatory factor analysis (CFA) was carried for factor analysis as well as structural equation modelling (SEM) using Smart PLS. The results from the CFA showed that there is a positive relationship between the identifying need for counselling CR= 0.956, preparing for counselling CR= 0.964, conducting counselling session CR= 0.971, carrying out follow up CR= 0.881. The findings from the responses showed that therapists are conscious of the health implications of the pandemic as well as precautionary measure for safety. This shows that the therapists cannot only administer emotional therapy to the victims of COVID-19 but also counsel people on precautionary measures for healthy living.

Keywords: *Readiness, Counselling Psychologists, COVID-19*

Introduction

The era of coronavirus disease-2019 (COVID-19) has dramatic impact on global health, economics and social connections around the world. In an attempt to combat the uncontrolled spread of the virus, measures such as curfews, quarantine, isolation and social distancing have implemented in many countries. These measures required rapid adaptations in the provision of mental health care around the world (Jurcik et al., 2020). The protocols implemented to prevent the spread of the virus present a significant challenge to mental health care, as face-to-face psycho- therapy has to be reduce.

According to Humer and Thomas (2020), the circumstances surrounding COVID-19 have posed a challenge for many psychotherapists used to providing treatment through personal contact. To provide mental health care while reducing the risk of transmitting the infection between patients and therapists, in-person, face-to-face psychotherapy is often replaced by remote psychotherapy. The provision of mental health care at a safe distance seems to be the obvious solution to ensure sufficient psychotherapeutic support in times of increasing mental health problems (Karaman et al., 2021). However, some psychotherapists and their patients have reservations about the use of remote psychotherapy, as the personal contact is often considered as an essential part of the therapy (Humer and Thomas, 2020). If patients and/or therapists are not willing to switch to remote

In the fight against coronavirus, due to the high prevalence of coronavirus infection and the lack of vaccination, which is an important prevention strategy, the implementation of some rapid and effective measures is yet to come (Jurcik et al., 2020). In this context, many additional safety measures have been taken worldwide. Precautions were taken with entry and exit from Wuhan and continued with travel bans, curfews, declaration of national independence, declaration of state of emergency, curfew, and segregation. Public (Karaman et al., 2021). One of the major measures taken in this regard is the disruption of education in schools to prevent students from contracting the disease (Vostanis and Bell, 2020).

During the COVID-19 disaster, access to students for educational and training activities through an online platform increased the impact of the crisis situation. Social / physical distance and other boundaries can lead to negative emotional states such as anxiety and fear, and these can affect student health (Silver et al., 2020). Students are shown in groups that have the most mental health problems at the moment because they must participate in distance learning activities without participating in any coordination programs and they fit that. process without support which leads to dissatisfaction with students. As a result of the difficulties encountered after COVID-19, children had difficulty adjusting to the environment and experienced learning difficulties, and this increased stress (Vostanis and Bell, 2020) Schools not only provide educational services but also many other services to students (such as food / nutrition, health care, educational programs, and mental health services)

According to Vostanis and Bell (2020) COVID-19 has a negative impact on thinking health and social, mental, emotional and educational well-being of young people. When examining other research results, it was revealed that schools have different effects that can help reduce

this pattern during epidemics Miu et al. (2020). It is normal for a pandemic to cause anxiety and panic in the community, but anxiety and panic caused by a pandemic can make it difficult for individuals to fight the effects of the disease (Karaman et al., 2021). Identifying and responding to stress-related factors can reduce people's stress levels and help fight disease (Li, 2020). In other words, the disease not only poses a risk of illness and death, but also a negative psychological impact (Karaman et al., 2021). For example, the fear of illness, the fear of being alone at home and studying late, the fear of families failing to pay school fees due to income loss, and looking at inappropriate things on social media have a negative impact on a student's mental health (Humer and Thomas, 2020). An increase in the level of fear results in a decrease in the levels of pleasure and hope of individuals. In addition, isolation activities can increase stress levels and lead to cognitive problems (Ahmad et al., 2021). Outbreaks appear to be exacerbated during pregnancy (Bell et al., 2021).

Changes in learning spaces after COVID-19 the epidemic has brought about changes in the education system and practices. These changes have affected every section of society and educators. Teachers have tried to adapt to this new environment. During this time, counsellors in the school make a special effort to help the students. However, since most job descriptions for counsellors are set up face-to-face, this new trend will be a system that should be explored as well. On the other hand, this will not be an obstacle for them, as school counsellors recommend helping students overcome obstacles (Ahmad et al., 2021)

The impact of the pandemic on all aspects of life has made the role of counselling psychologists more appreciable considering its physical, social, and mental effects on humanity. The profession focuses on personalities, human strengths, person-environment interactions, education, career development, and environmental challenges. Practices in the field also include using psychological principles to develop the growth, well-being, and mental health of individuals, families, groups, and the community at large. In other words, a counselling psychologist assists people with emotional and mental health issues to improve and get rid of feelings of distress (Bell et al., 2021). They are responsible for bridging the gap between psychology and humanity.

A Counselling Psychologist is responsible for assessing patients and identify the problems they have. This includes an assessment of their mental health needs, the risks they are exposed to, as well as psychometric testing (Miu et al., 2020). They also engage patients in discussions that make them feel comfortable thus, helping them establish a working relationship with the patient and activate trust and respect. These make it easy to formulate psychological explanations on patients' issues. A Counselling Psychologist have to plan and implement psychological treatments that will help patients understand their feelings and behaviour.

Various studies have been carried out on counselling and therapeutic services in the era of COVID-19. A study on "COVID-19: Are School Counselling Services Ready? Students' Psychological Symptoms, School Counsellors' Views, and Solutions" by Karaman et al. (2021) Revealed that, if students start face-to-face education, they may experience emotional, academic, and relational difficulties and that, it is vital that student personality services be

prepared and implemented by school counselling services for schools based on the results. Another study on "Challenges and recommendations for mental health providers during the COVID- 19 pandemic, the experience of China's First University-based mental health team" concluded that, entire world must come together in the face of this devastating pandemic. Have a newfound appreciation for global interdependence and therefore recognize how important it is that mental health professionals share knowledge and experience, thereby assisting in the development of effective and efficient mental health practices throughout the world (Chen et al., 2020). On "Tele therapy with serious mental illness populations during COVID-19: telehealth conversion and engagement", Miu et al. (2020) noted that, as the COVID-19 pandemic continues to disrupt normal lives, it is important to ensure continuity of care and therapy engagement for vulnerable populations with serious mental illness. By examining therapy utilization before and during COVID-19. The challenges faced by trainees in the era of the pandemic cannot be ignored as Psychotherapists have encountered many challenges during the COVID-19 pandemic, with some psychology graduate students managing the difficulty and uncertainty that comes with terminated practice (King, 2020).

On "shifting a training clinic to tele therapy during the COVID-19 pandemic: a trainee perspective", Scharff et al. (2020) discovered that, neither trainees, nor supervisors or administrators, anticipated the need for the Psychological Services Centre to transition to tele therapy services during the COVID-19 pandemic. In its rapid response to the crisis, the PSC was able to ensure continuity of care to clients in need and to allow doctoral students to progress in their training despite stay-at-home orders that interrupted education and societal functioning worldwide. According to Poletti et al. (2020), tele-psychotherapy represents a trustworthy alternative to be adopted, especially given the current necessity to limit face-to-face contact and, at the same time, the urgent need to provide effective support. Infective outbreak might have a significant and specific impact on people's well-being and mental health, including increased emotional difficulties, depressive symptoms, anxiety, irritability, insomnia, post- traumatic stress symptoms, fear and anger. Relatedly. Thompson-de Benoit and Kramer (2020), certain feasibility of remote work with emotions in psychotherapy, for individual clients, and for couples. Specific challenges represent relationship and contextual factors (clear communication, using tone of voice, regular check ins, setting up a clear frame, technical aspects of communication, the Self of the therapist), accessing and deepening emotions and managing dysregulated experience and interpersonal escalation.

Problem
A review of existing literature shows that studies on the readiness of counselling psychologists in the era of COVID-19 have been given little attention. However, the level of readiness of counselling psychologists is vital, considering the benefits of these professionals in reducing psychological distress and promoting the well-being of individuals, groups and families. Due the adjustments brought about by COVID-19 pandemic in all areas of life, this study seeks to determine the readiness of counselling psychologists in disseminating their duties in the era of the pandemic.

Methods

The population of this study comprised the Counselling Psychologist in North-Central secondary schools of Nigeria. A total population purposive sampling technique was used to arrive at the sample size of two hundred and thirty-seven (237) who responded to the 5-point Likert's type questionnaire was validated by two (2) experts in the field of counselling psychology. After the review of the completed questionnaires for missing data omission and other errors, two hundred and fifteen (215), which signifies the return rate of ninety-point seven per cent (90.70%), were retained. Confirmatory factor analysis (CFA) was carried for factor analysis as well as structural equation modelling (SEM) using SEM Smart PLS.

To determine the readiness level of Counselling Psychologists in the era of COVID-19, the following questions were raised based on the four stages of counselling:

1. How do counselling psychologists identify the need for counselling in the era of COVID-19?
2. How do counselling psychologists prepare for counselling in the era of COVID-19?
3. How do counselling psychologists conduct counselling session in the era of COVID-19?
4. How do counselling psychologists carry out a follow-up in the era of COVID-19?

Data Analysis

To conduct the structural equation modelling analysis with the application of Partial Least Square Structural Equation Modelling using Smart PLS it is necessary to analyse two main stages validating (i) Measurement Model and (ii) Structural Model (Hair et al., 2017). These steps are taken to analyse the data and present the results of this study.

Initial Measurement Model

The measurement model of the study has four variables which include: Identify the Need for Counselling (INC), Preparing for Counselling (PFC), Conduct Counselling Session (CCS) and, carrying out a follow-up (CFU) were validated in two major stages (i) Initial measurement model and the (ii) Modified measurement model which is used to answer the research questions and further test the hypothesis. The Measurement models of the variables were evaluated by items loading, composite reliability (CR) and average variance extracted (AVE). Items loading of at least 0.7 showed satisfactory indicator reliability for the measurement model. To validate the initial measurement model, the factor loadings of the 28 items (INC=8, PFC=8, CCS=7 & CFU=5) measuring constructs were assessed. The measurement model is represented in Figure 1.

Figure 1: Initial Measurement Model
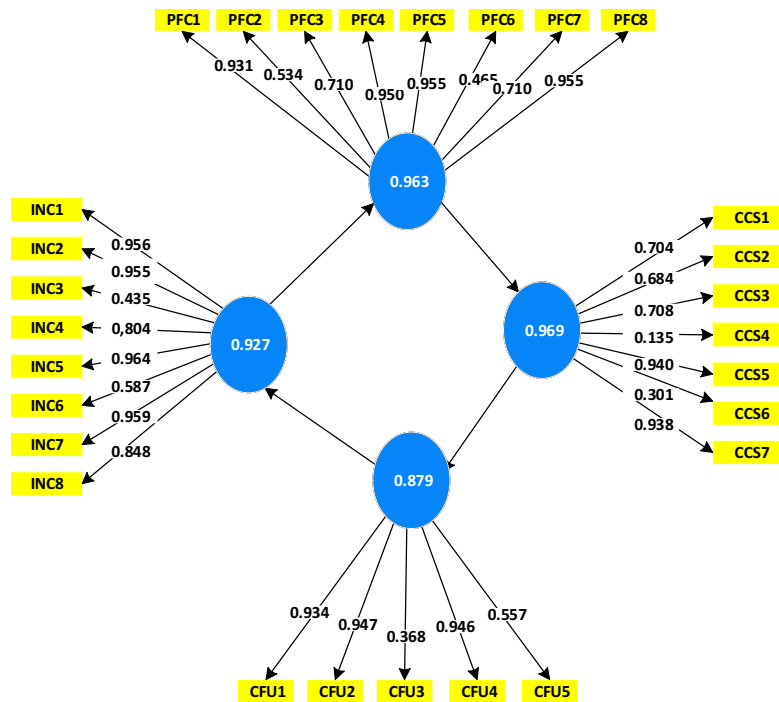
Modified Measurement Model

Modified Measurement Model Based on the analysis of the results as presented measuring the constructs, 21 of the 28 items (INC=6, PFC=6, CCS=5, & CFU=4) measuring the four variables showed loadings 0.7 and above, indicating satisfactory loading as shown in Tables 1, 2, 3 & 4 (Hair et at., 2017). Similarly, the overall items showed unsatisfactory reliability with the composite reliability (CR). The convergent validity assessed through investigating average variance extracted (AVE) values were also less than 0.500. These items with poor loadings were omitted from the measurement model to obtain a clear and final measurement model with adequate fit to answer the research questions. The modified model is, as shown in Figure 2.
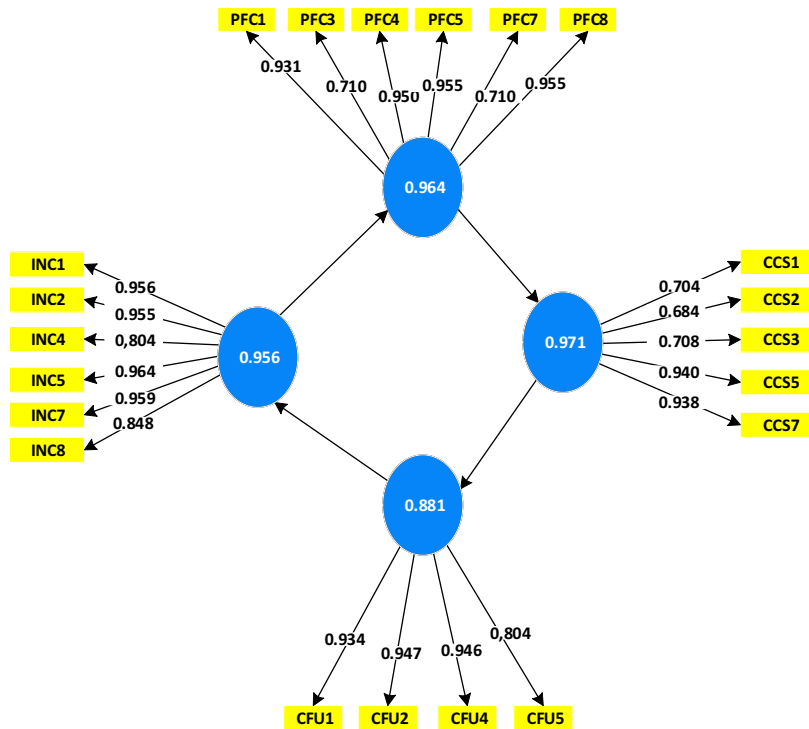
Figure 2: Modified Measurement Model

Table 1: Identifying the Need for Counselling

CODE	ITEMS	LOAD	CR	AVE
INC1	Client having low or no energy	0.956	0.956	0.798
INC2	Clients having unexplained aches and pains, such as constant stomach-aches or headaches	0.955		
INC4	Client having excessive smoking, drinking, or using drugs, including prescription medications	0,804		
INC5	Client worrying a lot of the time; feeling guilty but not sure why	0.964		
INC7	Client having difficulty readjusting to home or work life	0.959		
INC8	Client feeling traumatised	0.848		

Table 2: Preparing for Counselling

CODE	ITEMS	LOAD	CR	AVE
PFC1	Focusing on the things that can be control and prioritizing the ones that are healthy,	0.931	0.964	0.864
PCF3	Getting the Body Moving to Help maintain Mental Wellness	0.710		
PCF4	Modelling Self-compassion to ensure mental wellness	0.950		
PFC5	Setting Reasonable Expectations (for yourself and others)	0.955		
PFC7	Create a dictated Work Space to Improve Mental Wellness	0.710		
PFC8	Setting office hours for remote counselling services	0.955		

Table 3: Conduct Counselling Session

CODE	ITEMS	LOAD	CR	AVE
CCS1	Carving out a safe space and intentional time for therapy	0.704	0.971	0.774
CCS2	Expecting some awkwardness at first	0.684		
CCS3	Being flexible with the format of your therapy	0.708		
CCS5	Practicing naming emotions more explicitly in the absence of bodily cues,	0.940		
CCS7	Encourage your clients to give feedback	0.938		

Table 4: Carrying out a Follow-up

CODE	ITEMS	LOAD	CR	AV
CFU1	Maintains a list of all the clients who have received placement service.	CFU1	0.881	0.865
CFU2	Carry out tele-follow up services	CFU2		
CFU4	Communicate the client through WhatsApp and SMS messages	CFU4		
CFU5	Use electronic mailing system to communicate with the client.	CFU5		

Discriminant Validity

The discriminant validity of the measurement model was assessed in line with Fornell and Larcker's principle (Creswell, 2013). A proposed measurement model is considered to have discriminant validity if the AVE's square root is more than the correlations existing between the considered measure and all other measures. The assessment was performed on the discriminant validity of each construct. The results showed that all roots of AVE were more than the off-diagonal elements within their corresponding column and row. The bold values in Table 5 indicate the AVE's square roots and other values denote the intercorrelation value existing between the constructs. This indicates that Fornell and Larcker's criterion are met (Henseler, 2018). Thus, with the satisfaction and guaranteeing of discriminant validity, all the

adjustments of the measurement model have been completed and can be used to run the structural model and test the study's hypotheses

Table 5: Modified Discriminant Validity for the Variable

VARIABLES	INC	PFC	CCS	CFU
Identifying Need for Counselling	**0.798**			
Preparing for Counselling	0.695	**0.864**		
Conducting Counselling Session	0.783	0.692	**0.774**	
Carrying out Follow up	0.769	0.773	0.767	**0.867**

Findings and Discussion

The result from the factor analysis showed that there is a positive relationship between the counsellors' ability to identify need for counselling, preparing for counselling, conducting counselling session, and carrying follow-up on clients. The modified structural and measurement models indicate that the counselling professionals are able to identify when clients are in need of counselling through indices like clients having low or no energy thus agreeing with (Lund, 2020). The findings are also consistent with that of Karaman et al. (2021) having unexplained aches and pains, such as constant stomach-aches or headaches. Having excessive smoking, drinking, or using drugs, including prescription medications and worrying a lot of the time also agrees with (Low et al., 2012) feeling guilty but not sure why; having difficulty readjusting to home or work life and; feeling traumatised. In terms of preparation for counselling session, experts unanimously agreed to focus on the things that can be control and prioritizing healthy one. they get the body moving to help maintain mental wellness; modelling self-compassion to ensure mental wellness; setting reasonable expectations; creating a dictated work space to improve mental wellness and: setting office hours for remote counselling services, the finding are in line with those of (Lund, 2020; Silver et al., 2020).

On conducting counselling sessions in the era of COVID-19, the therapists agree that they usually carve out a safe space and intentional time for therapy. They are conscious of some awkwardness at first; which, are flexible with the format of therapy. Practice naming emotions more explicitly in the absence of bodily cues and; encourage your clients to give feedback The therapist also agreed that they do maintain a list of all the clients who have received placement service; carry out tele-follow up services; communicate the client through WhatsApp and SMS messages and; use electronic mailing system to communicate with the client. These finding are consistent with those of Thompson-de Benoit and Kramer (2020) whose finding showed that, there was a certain feasibility of remote work with emo-ions in psychotherapy, for individual clients, and for couples. Specific challenges represent relationship and contextual factors (clear communication, using tone of voice, regular check ins, setting up a clear frame, technical aspects of communication, the Self of the therapist), accessing and deepening emotions and managing dysregulated experience and interpersonal escalation. They also agree with that of Pelden & Banham (2020) whose gave preference for traditional face-to-face counselling over online counselling features in counselling courses, where more value is placed on practices in a physical setting compared to non-placement.

Conclusion

This study this study determined the readiness of counselling psychologists in the era of COVID-19. To this effect, the study investigated the therapists' readiness in identifying the clients' need for counselling, preparing for counselling, conducting counselling session and, carrying out follow-up. The findings from the responses showed that therapists are conscious of the health implications of the pandemic as well as precautionary measure for safety. This shows that the therapists cannot only administer emotional therapy to the victims of COVID-19 but also counsel people on precautionary measures for healthy living.

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Oil Price Shock, Economic Growth and Openness in The COVID-19 Era

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Abstract

This paper examines the link between oil price shock, economic growth, and openness using data from 1980 to 2020. Regression was used to estimate the short and long-run results. The results reveal that oil price shock has a negative and imperative impact on economic growth in the short run. However, as the economy becomes more buoyant, the shock in oil prices tends to positively impact economic growth in the long run. Trade openness also positively and significantly impacts economic growth in the short run. Yet, trade openness and exchange rates were found to be statistically less influential in the long run. This implies that the negative oil price shock is more visible in the short run while the impact is dispelled in the long run. Thus, policymakers need to pay attention to the role of exchange rates and comparative trade benefits to economic growth.

Keywords: Oil price, Growth, Volatility, Openness

Introduction

The global oil price has become increasingly volatile in recent times. Increasing demand in developing countries and rising supply led by United States production is said to have contributed to the volatility of oil prices. Importantly, the current COVID-19 pandemic has surprisingly pushed oil prices to a new low. The United States crude oil benchmark contracted to a negative value for the first time in the second quarter of 2020. Similarly, the price of Brent crude oil, which represents the global price, also fell significantly to approximately $18.38 per barrel in April 2020, representing the worst of its kind since the 1990s (OPEC, 2020).

Contraction in economic activities, which reduced China's oil demand by 20% in the COVID-19 era, has further worsened the predicament. It was projected that major oil-producing countries like Iraq, Nigeria, and Angola would likely see a drop in their net income from 50% - 85% compared with 2019 (IEA, 2020). This will result in the lowest income generated from the sector by these countries over two decades. Thus, revenues could fall further depending on future market conditions. Nigeria, one of the world's largest crude oil producers, the 10th largest producer and the 6th largest exporter among OPEC members, has experienced a major contraction in its economic growth (OPEC, 2020).

The fall in the price of crude oil in the COVID-19 era to less than $25 per barrel has led to a fiscal deficit on the Nigerian government budget and a subsequent contraction in its growth rate to a negative value of -6.1% and -3.2% during the second and third quarter of the year 2020 (NBS, 2020). These consecutive negative growth rates have dragged the economy into recession. Later, the economy came out of recession during the first quarter of 2021 with a positive gross domestic product growth rate of 0.10%. Thus, the measures put in place to contain the impact of COVID-19 have a negative effect on economic activities.

Furthermore, given that Nigeria's level of investment is low, trade openness and foreign capital are of immense importance in accelerating the pace of economic growth. The Nigerian economy presently depends largely on foreign trade, which is the exportation of crude oil to generate revenue for the government and achieve economic growth. This has not allowed for balanced economic growth, as some sectors have been allowed to grow while others are lagging. This has made it difficult for the present government to fully diversify the economy, so the economy has remained a developing country (Kawai, 2016).

This paper contributed to existing studies in the following respects. One, the study incorporates recent oil price volatility, economic growth, and trade openness data of the COVID-19 period in its analysis. Two, it contributes to the inconclusive debate on the nexus between oil prices, economic growth, and trade openness during a pandemic era. Three, the study will be of immense importance to policymakers in further understanding the effect of over-reliance on crude oil can have on economic growth. Thus, this paper examines the link between oil price volatility, economic growth and trade openness in Nigeria.

Methodology
Estimation method and data
This paper used the Autoregressive distributed lag (ARDL) method developed by Pesaran et al. (2001) as the estimation approach. The use of this method is informed by the following reasons: (i) unlike the Vector Autoregressive (VAR) method, the ARDL method combines both endogenous and exogenous variables; (ii) the method can be used for different orders of variable integration, whether purely $I(0)$, purely $I(1)$ or combination of both; (iii) the method estimates the short and long-run models simultaneously. To develop the ARDL model, we begin by specifying the general functional form of the model, followed by the econometric form of the model in equations 1 and 2.

$$Y_t = f(OP_t, ER_t, TO_t) \tag{1}$$
$$Y_t = \pi_0 + \pi_1 OP_t + \pi_2 ER_t + \pi_3 TO_t + \mu_t \tag{2}$$

Y is the Gross domestic product, OP represents the oil price, ER is the exchange rate, and TO is trade openness. Before estimating equation (2), we need to find the presence of cointegration, establishing equilibrium among the variables. Once cointegration exists, then we can proceed with the long-run estimations. Furthermore, the data for this paper are all sourced from the World Bank database from 1980 to 2020. Brent crude oil prices measure oil price volatility, and economic growth is measured by per capita gross domestic product, exchange rate is measured by the official exchange rate, and trade openness is measured by trade percentage of gross domestic product.

Results
The discussion of results begins by estimating the unit root test results using the ADF and PP methods and considering both constant and trend. This is to ascertain the level of stationarity of the variables. The unit root test results reveal that all the variables are stationary. While few of the variables are stationary at level, most are stationary at first difference.

Table 1: Cointegration test

Model				Critical bound test	
	F-stats	Lag	Significance Level	Unrestricted intercept	
	4.03	3		1(0)	1(1)
			1%	3.65	4.66
			5%	**2.79**	**3.67**

After establishing the level of integration of the variables, a cointegration test that assess the equilibrium and long-run relationship of the variables was conducted. In this instance null hypothesis of no cointegration $a_{1-4} = 0$ was tested against the alternative hypothesis $a_{1-4} = 0$. The result as presented in Table 1 shows that equilibrium and long-run relationship exist among economic growth and the explained variables namely: oil price volatility, official exchange rate and trade openness. As such, we reject the null hypothesis and accept the alternative hypothesis. The existence of cointegration is justified by the presence of F-statistics (4.03) which is greater than the upper bound critical value (3.67) at conventional 5% level of significance.

After establishing the equilibrium relationship among the variables, the short-run, long-run, and diagnostic test results are presented in Table 2. The result of the short-run shows that oil price volatility has a negative and significant effect on economic growth. This result is intuitive, especially for countries like Nigeria, which heavily depend on crude oil as its main source of foreign exchange earnings and revenue to the government. Oil price shock during the short-run, such as the one that took place during the COVID-19 period, where oil price fell to $20 per barrel, has affected the fiscal condition of most countries, especially oil-dependent economies.

The result, as evidenced by the coefficient of error-correction term, revealed persistence in convergence to equilibrium after an initial oil price shock. This finding corroborates existing empirical works (Elmi and Jahadi, 2011; Nwonu, 2017; Nwoba et al., 2017). However, trade openness was found to be significant and positively impacting economic growth in the short run, while the impact of the exchange rate was neutral in the short run. The implication of this finding is that if the government continues to rely on oil as its main source of income, short-term shocks will lead to a fiscal deficit that will take a long time for the economy to recover.

Furthermore, the long-run result presented in the middle of Table 2 shows that oil price volatility has a positive and important effect on economic growth in the long run. Although this result differs from the short-run result, the outcome is practically intuitive. Most economies that depend on crude oil tend to develop resilience of oil price shock during the long run. This is achieved by reducing over-dependence on oil as the main source of revenue by diversifying the economy from its monocultural nature. In the case of Nigeria, the oil price shock during the COVID-19 era has made the government develop an Economic Sustainability Plan that aims to revitalize the economy through various stimulus packages targeted at small and medium enterprises of various sectors of the economy. This includes the agricultural, manufacturing, construction, ICT, and energy and power sectors, among others. This result is in agreement with recent empirical findings (Foudeh, 2017; Bediako, 2018; Folajimi et al., 2019).

Table 2: Results of short-run, long-run, and diagnostic tests

Dependent Variable = Y		
Regressors	Coefficients	T-statistics (p-value)
Long-run results		
lnOP	0.384	10.619 (0.000) ***
lnTO	0.033	0.474 (0.639)
lnER	-0.057	-1.041 (0.307)
Constant	6.272	14.676 (0.000) ***

Short-run results		
D(lnOP)	-0.080	-3.607
		(0.001) ***
D(lnTO)	0.064	4.166
		(0.000) ***
D(lnER)	0.006	0.425
		(0.674)
ect$_{t-1}$	-0.225	-4.800
		(0.000) ***
Diagnostic tests	Statistics	
Serial Correlation	0.975 (0.216)	
Normality	0.009 (0.996)	
Heteroscedasticity	6.198 (0.798)	

Note: * **, **, * indicate 1%,5%, and 10% significance level respectively. Values in parenthesis are p-values while ln indicates logarithm.

However, neither exchange rate nor trade openness was found to influence economic growth in the long run. The implication of these findings for policy purposes is that an economy like Nigeria that depends heavily on oil as its main source of revenue will continue to experience oil price volatility shock in the short run until the economy is fully diversified in the long run when oil price shock will not lead to negative economic growth such as the one experienced during the second and third quarter of the year 2020.

Conclusion and policy implications
This paper investigates the connection between oil price volatility, economic growth and trade openness in Nigeria. Bound tests and regression were employed to estimate a dataset from 1980 to 2020. The findings show that oil price volatility negatively and significantly impacts economic growth in the short run. However, as the economy diversifies and becomes more resilient in the long run, the volatility of oil prices tends to positively impact economic growth. Trade openness was found to positively and significantly impact economic growth in the short run.

However, exchange rate and trade openness were found to have a neutral long-run impact on economic growth. The implication of these findings is that oil price volatility will continue to have a short-run effect on the economy that so much relies on oil as its source of foreign earnings. However, as the economy diversifies and builds other sectors, the economy will become resilient to oil price volatility shock in the long run. Moreover, since the negative effect of oil price volatility is more prominent in the short run and dissipates during the long run, the study recommends that policymakers ensure the full implementation of the present government's economic recovery and growth plan. Finally, based on the findings from the control variables, policymakers should pay more attention to the lingering problem of exchange rates in the country to harness the benefits associated with trade.

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